Environment Act Proposal Form

Name of the development:
Corrugated and Solid Fiber Box Manufacturing

Type of development per Classes of Development Regulation (Manitoba Regulation 164/88):
Manufacturing and industrial plant Classe #2

Legal name of the applicant:
Cascades Containerboard Packaging-Winnipeg, a division of Cascades Canada ULC

Mailing address of the applicant: 680 wall street

Contact Person: Christopher Watson

City: Winnipeg Province: MB Postal Code: R3G 2T8

Phone Number: (204) 786-5761 Fax: email: christopher_watson@cascades.com

Location of the development: 680 wall street, Winnipeg, MB

Contact Person: Christopher Watson

Street Address: 680 wall street

Legal Description: Industrial park

City/Town: Winnipeg Province: MB Postal Code: R3G 2T8

Phone Number: (204) 786-5761 Fax: email: christopher_wateson@cascades.com

Name of proponent contact person for purposes of the environmental assessment:
Christopher Watson

Phone: (204) 786-5761 Fax:	Mailing address: 680 wall street, Winnipeg, MB, R3G 2T8

Email address: christopher_watson@cascades.com

Webpage address: www.cascades.com

Date: 2023-02-13	Signature of proponent, or corporate principal of corporate proponent: [redacted] Printed name: Christopher Watson

PRINT RESET

A complete **Environment Act Proposal (EAP)** consists of the following components:

- ☐ **Cover letter**
- ☐ **Environment Act Proposal Form**
- ☐ **Reports/plans supporting the EAP** (see "Information Bulletin - Environment Act Proposal Report Guidelines" for required information and number of copies)
- ☐ **Application fee** (Cheque, payable to Minister of Finance, for the appropriate fee)

Per Environment Act Fees Regulation (Manitoba Regulation 168/96):

Class 1 Developments	$1,000
Class 2 Developments	$7,500
Class 3 Developments:	
Transportation and Transmission Lines	$10,000
Water Developments	$60,000
Energy and Mining	$120,000

Submit the complete EAP to:
Director
Environmental Approvals Branch
Manitoba Environment, Climate and Parks
1007 Century Street
Winnipeg, Manitoba R3H 0W4

For more information:
Email: EABDirector@gov.mb.ca
Phone: (204) 945-8321
Fax: (204) 945-5229
https://www.gov.mb.ca/sd/permits_licenses_approvals/eal/licence/index.html

Internal Use Only
$1,000.....C1 B-02
$7,500.....C2 B-02
$10,000....TT B-02
$60,000.....WD B-02
$120,000...EM B-02

Manitoba Environment, Climate and Parks
Environmental Stewardship Division
Environmental Approvals Branch

APPROVAL FOR CASCADES CONTAINERBOARD PACKAGING-WINNIPEG, A DIVISION OF CASCADES CANADA ULC.

Presented to

Eshetu Beshada, PhD.P.Eng
Senior environmental Engineer
Industrial and Wastewater Section
Ph: 204-250-1932

Cascades Canada ULC.
471, Marie-Victorin
Kingsey Falls (Québec) J0A 1B0

JANUARY 2023

INTRODUCTION

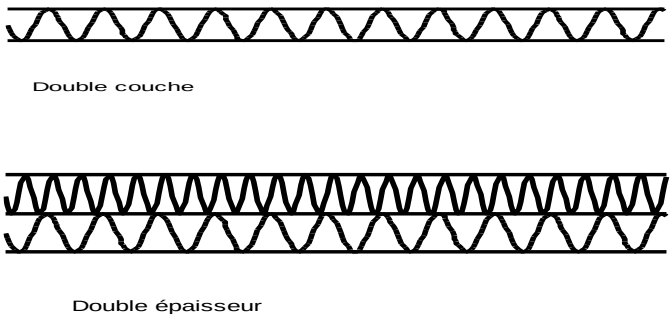
Cascades ContainerBoard Packaging,Winnipeg, a division of Cascades Canada ULC... is a corrugated and boxboard manufacturing facility. Recently, an Inspector form Manitoba Environment, Climate and Parks has requested a technical description for the purpose of obtaining an Approval under The Environment Act.. A brief description of the process will be presented, including a description of the equipment, the raw materials used and the impact of Cascades Winnipeg on the Environment.

DESCRIPTION OF THE MANUFACTURING PROCESS

The Winnipeg plant manufactures corrugated cardboard. The raw materials purchased by the converting plants consist of rolls or cardboard sheets of two types: the “medium” board mechanically formed into the corrugator to get a wavy appearance, and the “linerboard” on which the corrugated is glued. The corrugator is the machine that manufactures the corrugated by forming a “medium” and by gluing it to a flat “linerboard”. The resulting single face board is glued to another flat linerboard (on the other face of the corrugated medium) and results in a singlewall board.

An arch is the best way to maximize the strength of the surface it covers. The design of the flutes when they are glued to linerboard, agrees wholeheartedly to this concept because the flutes are assembled so as to enable the board to withstand great force and have an incredible pliability. The layers of flutes combine to form a series of columns that act as a stabilizer for carrying heavy loads. Meanwhile the space between the flutes acts as a shock absorber for the content of the box. The glued linerboard is essential for protecting the flutes against damage as well as giving them strength. Moreover, the flutes provide a certain protection against sudden changes of temperature in their immediate environment. For certain grades of cardboard, additives are also added to give a particular commercial value to the product.

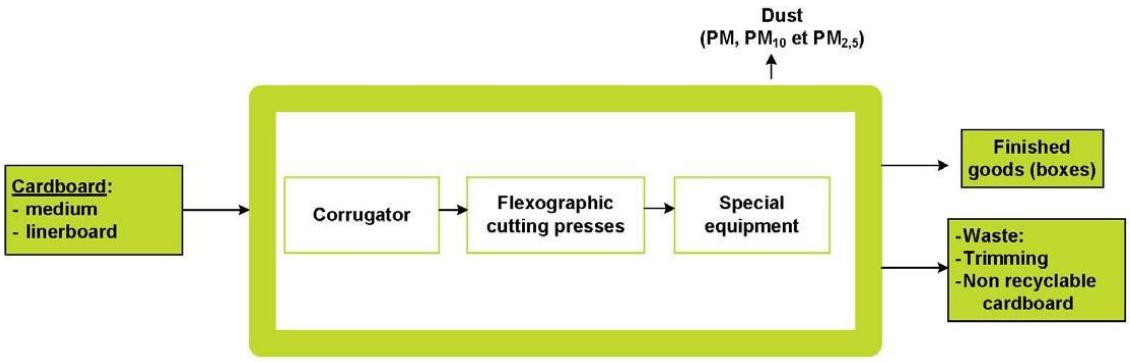
Figure 1: Single and Double wall cardboard



In addition to cardboard, corrugated board requires glue as a raw material. Steam is also used to facilitate the setting of the glue. The produced cardboard is either cut into sheets or bundled and stored before the next step.

The next step consists of cutting the cardboard to the desired dimensions in order to manufacture the boxes according to the customers' specifications. The cardboard scraps are sent to a compactor where they are baled and sent to a recycling site. The cardboard is cut with a cutting machine or with a rotary cutter. The cardboard is now ready for the final step of printing the boxes, according to the customer's specifications, folding them and gluing them. This is done with a flexographic press. All inks used are water-based, as shown on the MSDS sheets in Appendix 1. The boxes produced are stored prior to shipment to the customer.

Figure 2: Process summary



Currently, the plant is operating on a 16 hour per day, 5 day per week schedule. At this rate, the production volume is 900 million square feet. The production equipment is presented below.

Process equipment

One Corrugator (double backer-single facer) –
Three Flexographic folders gluers (#32, #35, #37) –
One Die cutter –
One Curtain coater –
Two boilers –
One shredder –
One horizontal Baler with 1 cyclone –
One Starch mixer and associated kitchen

CORRUGATOR

On the corrugator, steam and glue are used to produce corrugated cardboard. The glue is prepared on site with a system named the Kitchen. The glue kitchen is composed of tanks where starch, borax and water are mixed according to the recipe developed for the Winnipeg's corrugator. The glue setting is facilitated using heat provided by the steam from the boiler. Regularly, the nozzles that send the glue on the corrugator sheets are cleaned with water. Wash up water from the corrugator goes to the corrugator settling tank. The solids are pumped by a vacuum company and the clear water is discharged directly to sanitary sewer.

PRESS AND INK

The corrugated cardboard sheet is printed and cut with a flexographic cutting press to the desired dimensions to manufacture the boxes according to customers' specifications. The cardboard sheet is now ready for final operations, which include folding and gluing the boxes.
Cascades Winnipeg has 3 flexographic press on site. A flexo press uses flexible photopolymer printing plates to imprint images across a wide range of surfaces, making it one of the most efficient methods for large volume requirements. Used widely for packaging. flexo printing is reliable and provides consistently high quality print results at the same time.

Because is waterbased, flexographic inks are often regarded as printing process of poor quality but now flexography competes more and more with other technologies. Flexography is comparable to the principle of the ink pad on an industrial scale, and allows to print in many colors.

The ink formulation is an activity in constant innovation. Inks, although they're homogeneous, may contain 20 different constituents including, pigment, fluid part (more than 70%) and additives

IMPACTS ON THE ENVIRONMENT

Annual DATA

	2021	Unit	2022	Unit
Production	60 352 469	kg	52 345 155	kg
Natural Gas	53 360	GJ	75 321	GJ
Water used	19 209	m3	15 409	m3
Waste to Landfill	164	mt	728	MT

1. WATER

The manufacturing process uses very little water. There is indirect cooling water which is directed to the rainwater network and process water, essentially consisting of equipment washing water. Also, water is used in the manufacture of the glue and in the Boiler. The boiler's drain is directed to the sanitary network.

The effluent of the plant is mainly constituted by washing water from the presses and the corrugator. This water consists of ink from the washing of the Flexographic presses and glue from the washing of the corrugator. This water is disposed of with a supplier, as there is no physical-chemical treatment of the water on site. The pigments of inks have a chemical composition containing metals. During the washing of presses, the pigments are discharged with wastewater. Each flexo press has its own water retention pit. This water goes through a roof piping system in the ink setting tank and then, combined with corrugator settling tank are pumped out by a vacuum company.

Some indoor drains are discharged directly to the municipal sewer network.

Condensate from air compressors is being treated by an oil separator

Boiler blowdown goes directly to the sanitary sewer

2. EMISSION

There are two points of release to the atmosphere: the boiler stack and the printing press

Boiler is natural gas fired rated 0,9 MMBtu/h.

CEC Winnipeg	2021	2022
Combustible	Natural gas	Natural gas
Energy (GJ)	51379	51379
	kg/yr	kg/yr
COV	119,20	119,20
PM	41,10	41,10
PM 10	41,10	41,10
PM 2,5	41,10	41,10
CO	1 233,10	1 233,10
SO2	12,84	12,84
Nox	667,93	667,93

Inks need solvent to dry rapidly and solvent emits VOCs to the atmosphere.

VOC and HAP emissions

	2021			2022		
	Total ink used (kg)	VOC (kg)	HAP* (kg)	Total ink used (kg)	VOC (kg)	HAP* (kg)
January	4 967	41,2	1,7	4 747	35,6	2,1
February	7 277	64,1	2,4	5 391	37,2	1,8
March	6 288	44,5	2,5	8 416	66	3
April	5 785	49,6	1,9	3 450	18,7	1,4
May	10 028	78,2	3,6	6 712	54,1	1,6
June	8 054	58	2,7	6 421	51,7	1,7
July	6 603	41,4	2,3	3 889	27,6	1,4
August	6 107	44	2,2	7 288	52,4	2,6
September	8 330	55,4	3,4	4 467	38	1,3
October	6 677	48,2	2,4	4 498	41,4	1,6
November	7 994	62,9	2,9	5 724	51,4	1,9
December	5 877	44,9	2,3	4 371	36	1,6
Total	83 987	632,4	30,3	65 374	510,1	22

HAP* Hazardous Air Pollutant as defined by EPA

3. WASTE

The plant generates domestic and hazardous waste. Domestic waste is disposed of at the local landfill site. It should be noted that a multi-material recovery program is in place at the plant and that wood and plastic are recovered, thus reducing the volume of waste. The amount of waste can be very different depending on the production. In 2222, we add the wastewater disposed by vaccuum

Hazardous waste consists of used oil, solvent and degreaser. These materials are managed and disposed of in accordance with current regulations..

The use of printing inks produces empty containers (pails, drums) contaminated by inks and residual pigments which must be managed properly.

Apprendix 1 Ink SDS

Appendix 2 Location


Image © 2012 GeoEye
© 2012 Google
Google earth

Beshada, Eshetu

From: Carolyne Bourassa <carolyne_bourassa@cascades.com>
Sent: May 2, 2023 12:16 PM
To: Beshada, Eshetu <Eshetu.Beshada@gov.mb.ca>
Cc: Christopher Watson <chris_watson@cascades.com>
Subject: File 6151.00 - Cascade Canada - Cascades Winnipeg Facility

Hello

Below you will find the answers to complete the file

1. The attached EAP application form filled and signed. February 13th, 2023, Christopher Watson send the signed form to you
2. You indicated that a sludge from a corrugator settling tank is pumped for disposal. Please provide the volume of sludge disposed and how frequent is the pumping takes place. Do you also know where it will be disposed? Miller Environment pumps around 3000L per week of Sludge and wash up waters from corrugator. Our waste is supposed to be treated by Miller Environment.
3. You also indicated that a third party picks up hazardous waste. Please provide who picks the waste how frequent and the volume picked in a single pick up. Actually, GFL environment is our supplier for Hazardous waste and comes "as requested". Cascades Winnipeg hazardous waste is only used oil. Ink, sludge and soap are not hazardous waste. In the future, Cascades may used Safety Kleen as supplier.
4. Is there any emission control equipment in the facility such as dust collection cyclone etc?. If there is any which part of the operation is serviced using this emission control equipment. Yes it is. A dry cyclone is used at the baler to control dust.
5. What is the frequency and amount of baled cardboard scraps and other recyclables are sent to a recycling facility : Cascades sent 3 full trailer a week.
6. Provide a floor plan of the facility clearly labelled for each operation or equipment arrangements. Yes, the only floor plan found onsite is the emergency plan. Let me know if it is enough
7. Provide the zoning designation of the lot for the facility. City
8. Provide some information with respect to traffic flow considering shipping and delivery truckes. No complain received at the facility, when disposal truck arrive on site, it use one way on three ways but again no complain
9. Provide a land title for the land of lease information. Attached document
10. Provide the proximity of the facility to residential buildings. On Google Earth, I saw 85 m.
11. Have you ever received any compliant with respect to you operation which can be noise, traffic or dust related? None

Regards

Carolyne

Carolyne Bourassa, M.Sc. Env
Conseillère en Environnement

CASCADES CS+, CRD services spécialisés
471 boul.Marie-Victorin
Kingsey Falls, Qc, Canada, J0A 1B0

Tel: 819-363-5750 Ext.: 55707
Cell: 819-352-5275

DATE: 2009/06/30
TIME: 22:50

MANITOBA

STATUS OF TITLE

TITLE NO: 2377094

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED
HEREON IN THE FOLLOWING DESCRIBED LAND:

SLY 75 FEET LOT 31 PLAN 1465 WLTO
IN RL 53 AND 54 PARISH OF ST JAMES

ACTIVE TITLE NOTE(S):

OUTSTANDING DUPLICATE TITLE CARRIED FORWARD FROM OLD TITLE NUMBER

ACTIVE TITLE CHARGE(S):

NO ACTIVE TITLE CHARGES EXIST ON THIS TITLE

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC. 404 MARI-VICTORIN KINGSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00
PRESENTED BY:	PITBLADO -			
FROM:	NORAMPAC INC.			
TO:	CASCADES INC.			

FROM TITLE NUMBER(S):

1625959 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
31		1465

NOTE: RL 53 & 54 JA SLY 75 FEET

ACCEPTED THIS 22ND DAY OF JUNE, 2009
BY D.WILKEN FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA
STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377094.

********** END OF STATUS OF TITLE 2377094 WPG **********

DATE: 2009/06/30
TIME: 22:50

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STATUS OF TITLE

TITLE NO: 2377095

PAGE: 1

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ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED
HEREON IN THE FOLLOWING DESCRIBED LAND:

NLY 200 FEET LOT 30 PLAN 1465 WLTO
IN RL 53 AND 54 PARISH OF ST JAMES

ACTIVE TITLE CHARGE(S):

NO ACTIVE TITLE CHARGES EXIST ON THIS TITLE

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC. 404 MARIE-VICTORIN KINGSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00

PRESENTED BY: PITBLADO
FROM: NORAMPAC INC.
TO: CASCADES INC.

FROM TITLE NUMBER(S):

1625961 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
30		1465

NOTE: RL 53 & 54 JA NLY 200 FEET

ACCEPTED THIS 22ND DAY OF JUNE, 2009
BY D.WILKEN FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

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DATE: 2009/06/30
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STATUS OF TITLE

TITLE NO: 2377097

PAGE: 1

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REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

NLY 100 FEET OF SLY 175 FEET LOT 31 PLAN 1465 WLTO
IN RL 53 AND 54 PARISH OF ST JAMES

ACTIVE TITLE CHARGE(S):

NO ACTIVE TITLE CHARGES EXIST ON THIS TITLE

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC 404 MARIE-VICTORIN KINGSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00
PRESENTED BY:	PITBLADO			
FROM:	NORAMPAC INC.			
TO:	CASCADES INC.			

FROM TITLE NUMBER(S):

1625962 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
31		1465

NOTE: RL 53 & 54 JA NLY 100 FEET OF SLY 175 FEET

ACCEPTED THIS 22ND DAY OF JUNE, 2009
BY D.WILKEN FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377097.

********** END OF STATUS OF TITLE 2377097 WPG **********

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STATUS OF TITLE

TITLE NO: 2377098

PAGE: 1

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REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

LOT 1 PLAN 24258 WLTO
EXC ALL MINES AND MINERALS
IN RL 54 PARISH OF ST JAMES

ACTIVE TITLE NOTE(S):

OUTSTANDING DUPLICATE TITLE CARRIED FORWARD FROM OLD TITLE NUMBER

ACTIVE TITLE CHARGE(S):

NO ACTIVE TITLE CHARGES EXIST ON THIS TITLE

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC. 404 MARIE-VICTORIN KINGSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00
PRESENTED BY:	PITBLADO			
FROM:	NORAMPAC INC.			
TO:	CASCADES INC.			

FROM TITLE NUMBER(S):

1625966 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
1		24258
NOTE:	EXC RES	

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377098

********** STATUS OF TITLE 2377098 WPG CONTINUED ON NEXT PAGE **********

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
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REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

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STATUS OF TITLE

TITLE NO: 2377100

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER OF ALL MINES AND MINERALS, SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN UPON OR UNDER THE FOLLOWING DESCRIBED LAND:

LOT 30 PLAN 1465 WLTO
EXC FIRSTLY: NLY 200 FEET AND
SECONDLY: WOLEVER AVENUE PLAN 4815 WLTO
IN RL 53 AND 54 PARISH OF ST JAMES

ACTIVE TITLE CHARGE(S):

NO ACTIVE TITLE CHARGES EXIST ON THIS TITLE

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC. 404 MARIE-VICTORIN KINGSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00

PRESENTED BY: PITBLADO
FROM: NORAMPAC INC.
TO: CASCADES INC.

FROM TITLE NUMBER(S):

1625967 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
30		1465

NOTE: RL 53 & 54 JA - M & M EXC N 200' & RD PL 4815

ACCEPTED THIS 22ND DAY OF JUNE, 2009
BY D.WILKEN FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

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********** END OF STATUS OF TITLE 2377100 WPG **********

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STATUS OF TITLE

TITLE NO: 2377101

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REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED
HEREON IN THE FOLLOWING DESCRIBED LAND:

LOT 31 PLAN 1465 WLTO
EXC SLY 175 FEET
IN RL 53 AND 54 PARISH OF ST JAMES

ACTIVE TITLE CHARGE(S):

219481 WPG ACCEPTED	CAVEAT		REG'D: 1971/07/16
FROM/BY:	DOMTAR LTD.		
TO:			
CONSIDERATION:		NOTES:	
242199 WPG ACCEPTED	CAVEAT		REG'D: 1976/11/23
FROM/BY:	DOMTAR LTD.		
TO:			
CONSIDERATION:		NOTES:	
242200 WPG ACCEPTED	CAVEAT		REG'D: 1976/11/23
FROM/BY:	DOMTAR LTD.		
TO:			
CONSIDERATION:		NOTES:	
249982 WPG ACCEPTED	CAVEAT		REG'D: 1978/01/25
FROM/BY:	DOMTAR LTD.		
TO:			
CONSIDERATION:		NOTES:	
249983 WPG ACCEPTED	CAVEAT		REG'D: 1978/01/25
FROM/BY:	DOMTAR LTD.		
TO:			
CONSIDERATION:		NOTES:	

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA
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********** STATUS OF TITLE 2377101 WPG CONTINUED ON NEXT PAGE **********

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC. 404 MARIE-VICTORIN KINGSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00
PRESENTED BY:	PITBLADO			
FROM:	NORAMPAC INC.			
TO:	CASCADES INC.			

FROM TITLE NUMBER(S):

1625968 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
31		1465
NOTE:	RL 53 & 54 JA EX S 175'	

ACCEPTED THIS 22ND DAY OF JUNE, 2009
BY D.WILKEN FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA
STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377101.

********** END OF STATUS OF TITLE 2377101 WPG **********

DATE: 2009/06/30
TIME: 22:50

MANITOBA

STATUS OF TITLE

TITLE NO: 2377102

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED
HEREON IN THE FOLLOWING DESCRIBED LAND:

LOT 29 PLAN 1465 WLTO -
EXC FIRSTLY: WOLEVER AVE PLAN 4815 WLTO
SECONDLY: LOT 1 PLAN 24258 WLTO AND
THIRDLY: ALL MINES AND MINERALS AS RESERVED BY VIRTUE OF THE
RAILWAY ACT, R.S.C. CAP R58
IN RL 53 AND 54 PARISH OF ST JAMES

ACTIVE TITLE CHARGE(S):

NO ACTIVE TITLE CHARGES EXIST ON THIS TITLE

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC. 404 MARIE-VICTORIN KINGSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00
PRESENTED BY:	PITBLADO			
FROM:	NORAMPAC INC.			
TO:	CASCADES INC.			

FROM TITLE NUMBER(S):

1964952 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
29		1465

NOTE: RL 53 AND 54 JA, EXC PLANS 4815, 24258 AND RES

ACCEPTED THIS 22ND DAY OF JUNE, 2009
BY D.WILKEN FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA
STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377102.

********** END OF STATUS OF TITLE 2377102 WPG **********

DATE: 2009/06/30
TIME: 22:50

MANITOBA

STATUS OF TITLE

TITLE NO: 2377104

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

FIRSTLY: SP LOT 3 PLAN 33660 WLTO
IN RL 55 AND 56 PARISH OF ST JAMES

SECONDLY: LOT 2 BLOCK 1 PLAN 2239 WLTO
IN RL 55 AND 56 PARISH OF ST JAMES

ACTIVE TITLE CHARGE(S):

NO ACTIVE TITLE CHARGES EXIST ON THIS TITLE

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC. 404 MARIE-VICTORIN KINSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00
PRESENTED BY:	PITBLADO			
FROM:	NORAMPAC INC.			
TO:	CASCADES INC.			

FROM TITLE NUMBER(S):

1625963 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
2	1	2239
NOTE:	RL 55-56 JA	
3		33660
NOTE:		

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377104

********** STATUS OF TITLE 2377104 WPG CONTINUED ON NEXT PAGE **********

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

ACCEPTED THIS 22ND DAY OF JUNE, 2009
BY D.WILKEN FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA
STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377104.

********** END OF STATUS OF TITLE 2377104 WPG **********

DATE: 2009/06/30
TIME: 22:50

MANITOBA

STATUS OF TITLE

TITLE NO: 2377105

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED
HEREON IN THE FOLLOWING DESCRIBED LAND:

SP LOT 2 PLAN 33660 WLTO
IN RL 55 AND 56 PARISH OF ST JAMES

ACTIVE TITLE CHARGE(S):

NO ACTIVE TITLE CHARGES EXIST ON THIS TITLE

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC. 404 MARIE-VICTORIN KINGSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00
PRESENTED BY:	PITBLADO			
FROM:	NORAMPAC INC.			
TO:	CASCADES INC.			

FROM TITLE NUMBER(S):

1625965 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
2		33660

NOTE:

ACCEPTED THIS 22ND DAY OF JUNE, 2009
BY D.WILKEN FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA
STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377105.

********** END OF STATUS OF TITLE 2377105 WPG **********

DATE: 2009/06/30
TIME: 22:50

MANITOBA

STATUS OF TITLE

TITLE NO: 2377107

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED
HEREON IN THE FOLLOWING DESCRIBED LAND:

NLY 333 FEET OF SLY 349.5 FEET OF LOT 25 PLAN 1465 WLTO
IN RL 53 AND 54 PARISH OF ST JAMES

ACTIVE TITLE CHARGE(S):

NO ACTIVE TITLE CHARGES EXIST ON THIS TITLE

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC. 404 MARIE-VICTORIN KINGSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00
PRESENTED BY:	PITBLADO			
FROM:	NORAMPAC INC.			
TO:	CASCADES INC.			

FROM TITLE NUMBER(S):

2071402 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
25		1465
NOTE:	NLY 333' OF SLY 349.5' RL 53 & 54 JA	

ACCEPTED THIS 22ND DAY OF JUNE, 2009
BY D.WILKEN FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA
STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377107.

********** END OF STATUS OF TITLE 2377107 WPG **********

DATE: 2009/06/30
TIME: 22:50

MANITOBA

STATUS OF TITLE

TITLE NO: 2377108

PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LEGAL DESCRIPTION:

CASCADES INC.

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON IN THE FOLLOWING DESCRIBED LAND:

SP LOTS 12 TO 22 PLAN 34789 WLTO
IN RL 51 AND 52 PARISH OF ST JAMES

ACTIVE TITLE CHARGE(S):

166392 WPG ACCEPTED CAVEAT REG'D: 1956/11/27
FROM/BY: CITY OF WINNIPEG
TO:
CONSIDERATION: NOTES: PART

ADDRESS(ES) FOR SERVICE:

EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CASCADES INC. 404 MARIE-VICTORIN KINGSEY FALLS PQ	J0A 1B0

ORIGINATING INSTRUMENT(S):

REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
3790936 WPG	T	2009/06/22	$1.00	$3,293,450.00
PRESENTED BY:	PITBLADO			
FROM:	NORAMPAC INC.			
TO:	CASCADES INC.			

FROM TITLE NUMBER(S):

2080643 WPG ALL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
12		34789
NOTE:		
13		34789
NOTE:		

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377108

********** STATUS OF TITLE 2377108 WPG CONTINUED ON NEXT PAGE **********

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	PITBLADO
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2500-360 MAIN ST.
REGISTERING OFFICE...	WINNIPEG		COMMODITY EXCHANGE TOWER
REGISTRATION DATE....	2009/06/22		WINNIPEG MB R3C 4H6
COMPLETION DATE.....	2009/06/30	LTO BOX NO....	111
		CLIENT FILE...	FMC33143.8BHK
		PRODUCED BY...	SYSTEM for Series : 3790936

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
14		34789
NOTE:		
15		34789
NOTE:		
16		34789
NOTE:		
17		34789
NOTE:		
18		34789
NOTE:		
19		34789
NOTE:		
20		34789
NOTE:		
21		34789
NOTE:		
22		34789
NOTE:		

ACCEPTED THIS 22ND DAY OF JUNE, 2009
BY D.WILKEN FOR THE DISTRICT REGISTRAR OF
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA
STORAGE SYSTEM ON 2009/06/30 OF TITLE NUMBER 2377108.

********** END OF STATUS OF TITLE 2377108 WPG **********

SAFETY DATA SHEET

WIK7107U0P

Section 1. Identification

GHS product identifier : GCMI 13 YELLOW GF

Product type : Liquid.

SDS # : d2qk:a09c:8j8

Relevant identified uses of the substance or mixture and uses advised against

Printing ink or additive.

Supplier's details : FLINT GROUP
17177 Laurel Park Drive Suite 300
Livonia, MI 48152 USA

Emergency telephone number (with hours of operation) : For Product Questions during business hours call (514) 731-9405
For Health and Safety Questions during business hours call (734) 781-4600
24 Hour Emergency Spill Contact call: (800) 424-9300 Chemtrec (US/Canada)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : May cause an allergic skin reaction.

Precautionary statements

Prevention : Wear protective gloves. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.

Response : Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
2-aminoethanol	.1 - 1	141-43-5

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Section 4. First aid measures

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-aminoethanol	**ACGIH TLV (United States, 3/2018).** STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 7.5 mg/m³ 8 hours. TWA: 3 ppm 8 hours. **NIOSH REL (United States, 10/2016).** STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 8 mg/m³ 10 hours. TWA: 3 ppm 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 6 mg/m³ 8 hours. TWA: 3 ppm 8 hours.

Section 8. Exposure controls/personal protection

	OSHA PEL 1989 (United States, 3/1989). STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 8 mg/m³ 8 hours. TWA: 3 ppm 8 hours.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Yellow.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melt point/Freeze point : Not available.

Boiling point : Not available.

Flash point : Higher than 93.3°C (200°F).

Evaporation rate : Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : Not available.

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Density : 12.027 lbs/gal

VOC data

VOC % by weight : 0.59

VOC % by volume : 0.84

VOC lbs/gallon : 0.07

VOC lbs/gal less water : 0.13

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-aminoethanol	LD50 Oral	Rat	1720 mg/kg	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
2-aminoethanol	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2-aminoethanol	1720	1100	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not applicable.	Not applicable.	Not applicable.	Not applicable.
UN proper shipping name				
Transport hazard class(es)				
Packing group				
Environmental hazards				
Additional information	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 5(a)2 proposed significant new use rules**: 5-chloro-2-methyl-2H-isothiazol-3-one; 5-chloro-2-methyl-2H-isothiazol-3-one

TSCA 5(a)2 final significant new use rules: Oxirane, 2-methyl-, polymer with oxirane, mono(3,5,5-trimethylhexyl) ether

All components of this product are listed as active or exempt from the TSCA chemical inventory.

SARA 311/312

Classification : SKIN SENSITIZATION - Category 1

California Prop. 65

⚠ **WARNING**: This product can expose you to chemicals including Titanium dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SKIN SENSITIZATION - Category 1	Calculation method

Section 16. Other information

History

Date of printing : 03.06.2021

Date of issue/Date of revision : 18.03.2021

Date of previous issue : 08.03.2021

Version : 2.04

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Flint Group has prepared this Safety Data Sheet ("SDS") in compliance with 29 CFR 1910.1200, understands that its customers may use this SDS to comply with that section, and believes that the data set forth herein are accurate as of the date hereof; however, this SDS shall not constitute a warranty with respect thereto.

SAFETY DATA SHEET

WIK7107U0P

Section 1. Identification

GHS product identifier : GCMI 13 YELLOW GF

Product type : Liquid.

SDS # : d2qk:a09c:8j8

Relevant identified uses of the substance or mixture and uses advised against

Printing ink or additive.

Supplier's details : FLINT GROUP
17177 Laurel Park Drive Suite 300
Livonia, MI 48152 USA

Emergency telephone number (with hours of operation) : For Product Questions during business hours call (514) 731-9405
For Health and Safety Questions during business hours call (734) 781-4600
24 Hour Emergency Spill Contact call: (800) 424-9300 Chemtrec (US/Canada)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : May cause an allergic skin reaction.

Precautionary statements

Prevention : Wear protective gloves. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.

Response : Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
2-aminoethanol	.1 - 1	141-43-5

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Section 4. First aid measures

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-aminoethanol	**ACGIH TLV (United States, 3/2018).** STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 7.5 mg/m³ 8 hours. TWA: 3 ppm 8 hours. **NIOSH REL (United States, 10/2016).** STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 8 mg/m³ 10 hours. TWA: 3 ppm 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 6 mg/m³ 8 hours. TWA: 3 ppm 8 hours.

Section 8. Exposure controls/personal protection

	OSHA PEL 1989 (United States, 3/1989). STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 8 mg/m³ 8 hours. TWA: 3 ppm 8 hours.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Yellow.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melt point/Freeze point : Not available.

Boiling point : Not available.

Flash point : Higher than 93.3°C (200°F).

Evaporation rate : Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : Not available.

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Density : 12.027 lbs/gal

VOC data

VOC % by weight : 0.59

VOC % by volume : 0.84

VOC lbs/gallon : 0.07

VOC lbs/gal less water : 0.13

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-aminoethanol	LD50 Oral	Rat	1720 mg/kg	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
2-aminoethanol	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2-aminoethanol	1720	1100	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not applicable.	Not applicable.	Not applicable.	Not applicable.
UN proper shipping name				
Transport hazard class(es)				
Packing group				
Environmental hazards				
Additional information	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 5(a)2 proposed significant new use rules**: 5-chloro-2-methyl-2H-isothiazol-3-one; 5-chloro-2-methyl-2H-isothiazol-3-one

TSCA 5(a)2 final significant new use rules: Oxirane, 2-methyl-, polymer with oxirane, mono(3,5,5-trimethylhexyl) ether

All components of this product are listed as active or exempt from the TSCA chemical inventory.

SARA 311/312

Classification : SKIN SENSITIZATION - Category 1

California Prop. 65

⚠ **WARNING**: This product can expose you to chemicals including Titanium dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SKIN SENSITIZATION - Category 1	Calculation method

Section 16. Other information

History

Date of printing : 03.06.2021

Date of issue/Date of revision : 18.03.2021

Date of previous issue : 08.03.2021

Version : 2.04

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Flint Group has prepared this Safety Data Sheet ("SDS") in compliance with 29 CFR 1910.1200, understands that its customers may use this SDS to comply with that section, and believes that the data set forth herein are accurate as of the date hereof; however, this SDS shall not constitute a warranty with respect thereto.

SAFETY DATA SHEET

WIK7308U0P

Section 1. Identification

GHS product identifier : GCMI 74 RED GF

Product type : Liquid.

SDS # : d5im:u3rc:8j8

Relevant identified uses of the substance or mixture and uses advised against

Printing ink or additive.

Uses advised against	Reason
Not applicable.	

Supplier's details : Flint Group
14909 N. Beck Road
Plymouth, MI 48170
United States

Emergency telephone number (with hours of operation) : For Product Questions during business hours call (540) 234-9203
For Health and Safety Questions during business hours call (734) 781-4600
24 Hour Emergency Spill Contact call: (800) 424-9300 Chemtrec (US/Canada)

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Colorless.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melt point/Freeze point : Not available.

Boiling point : Not available.

Flash point : Higher than 93.3°C (200°F).

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : Not available.

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Density : 11,442 lbs/gal

VOC data

VOC % by weight : 1.17

VOC % by volume : 1.6

VOC lbs/gallon : 0.13

VOC lbs/gal less water : 0.27

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not applicable.	Not applicable.	Not applicable.	Not applicable.
UN proper shipping name				
Transport hazard class(es)				
Packing group				
Environmental hazards				
Additional information	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: Not determined.

SARA 311/312

Classification : Not applicable.

Section 16. Other information

History

Date of printing : 1/30/2019

Date of issue/Date of revision : 12/20/2018

Date of previous issue : 10/11/2018

Version : 1.02

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Flint Group has prepared this Safety Data Sheet ("SDS") in compliance with 29 CFR 1910.1200, understands that its customers may use this SDS to comply with that section, and believes that the data set forth herein are accurate as of the date hereof; however, this SDS shall not constitute a warranty with respect thereto.

SAFETY DATA SHEET

WIK760FU0P

Section 1. Identification

GHS product identifier : GCMI 25 GREEN GF

Product type : Liquid.

SDS # : d5v0:67j0:8j8

Relevant identified uses of the substance or mixture and uses advised against

Printing ink or additive.

Supplier's details : FLINT GROUP
17177 Laurel Park Drive Suite 300
Livonia, MI 48152 USA

Emergency telephone number (with hours of operation) : For Product Questions call: +1 (864) 579-3870
For Health and Safety Questions call: +1 (734) 781-4600
After Hours Emergency Health/Safety Questions:
24 Hour Emergency Spill Contact: +1 (800) 424-9300 Chemtrec (US/Canada)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : May cause an allergic skin reaction.

Precautionary statements

Prevention : Wear protective gloves. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.

Response : Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified :

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
2-aminoethanol	.1 - 1	141-43-5

The specific chemical identity and/or exact percantage (concentration) of composition has been withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Section 4. First aid measures

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-aminoethanol	**ACGIH TLV (United States, 3/2018).** STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 7.5 mg/m³ 8 hours. TWA: 3 ppm 8 hours. **NIOSH REL (United States, 10/2016).** STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 8 mg/m³ 10 hours. TWA: 3 ppm 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 6 mg/m³ 8 hours. TWA: 3 ppm 8 hours.

Section 8. Exposure controls/personal protection

	OSHA PEL 1989 (United States, 3/1989). STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 8 mg/m³ 8 hours. TWA: 3 ppm 8 hours.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Green.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melt point/Freeze point : Not available.

Boiling point : Not available.

Flash point : Higher than 93.3°C (200°F).

Evaporation rate : Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : Not available.

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Density : 11.898 lbs/gal

VOC data

VOC % by weight : 0.42

VOC % by volume : 0.6

VOC lbs/gallon : 0.05

VOC lbs/gal less water : 0.09

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-aminoethanol	LD50 Oral	Rat	1720 mg/kg	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
2-aminoethanol	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2-aminoethanol	1720	1100	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not applicable.	Not applicable.	Not applicable.	Not applicable.
UN proper shipping name				
Transport hazard class(es)				
Packing group				
Environmental hazards				
Additional information	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 5(a)2 proposed significant new use rules**: 5-chloro-2-methyl-2H-isothiazol-3-one; 5-chloro-2-methyl-2H-isothiazol-3-one

All components of this product are listed as active or exempt from the TSCA chemical inventory.

SARA 311/312

Classification : SKIN SENSITIZATION - Category 1

California Prop. 65

⚠ **WARNING**: This product can expose you to chemicals including Carbon black, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

International regulations

Canadian lists

Canadian NPRI : The following components are listed: copper (and its compounds)

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SKIN SENSITIZATION - Category 1	Calculation method

History

Date of printing : 10/4/2021

Date of issue/Date of revision : 5/18/2021

Date of previous issue : 3/17/2021

Version : 3.09

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Flint Group has prepared this Safety Data Sheet ("SDS") in compliance with 29 CFR 1910.1200, understands that its customers may use this SDS to comply with that section, and believes that the data set forth herein are accurate as of the date hereof; however, this SDS shall not constitute a warranty with respect thereto.

SAFETY DATA SHEET

WIK750PU0PKB

Section 1. Identification

GHS product identifier : GCMI 39 BLUE GF

Product type : Liquid.

SDS # : d5ik:i3rc:8j8

Relevant identified uses of the substance or mixture and uses advised against

Printing ink or additive.

Supplier's details : FLINT GROUP
17177 Laurel Park Drive Suite 300
Livonia, MI 48152 USA

Emergency telephone number (with hours of operation) : For Product Questions during business hours call (214) 638-6700
For Health and Safety Questions during business hours call (734) 781-4600
24 Hour Emergency Spill Contact call: (800) 424-9300 Chemtrec (US/Canada)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : May cause an allergic skin reaction.

Precautionary statements

Prevention : Wear protective gloves. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.

Response : Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-aminoethanol	**ACGIH TLV (United States, 1/2021).** STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 7.5 mg/m³ 8 hours. TWA: 3 ppm 8 hours. **NIOSH REL (United States, 10/2020).** STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 8 mg/m³ 10 hours. TWA: 3 ppm 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 6 mg/m³ 8 hours. TWA: 3 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes.

Section 8. Exposure controls/personal protection

	TWA: 8 mg/m³ 8 hours. TWA: 3 ppm 8 hours.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Colorless.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melt point/Freeze point : Not available.

Boiling point : Not available.

Flash point : Higher than 93.3°C (200°F).

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Density : 9.257 lbs/gal

VOC data

VOC % by weight : 0.56

VOC % by volume : 0.61

VOC lbs/gallon : 0.05

VOC lbs/gal less water : 0.09

Particle characteristics

Median particle size :

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-aminoethanol	LD50 Oral	Rat	1720 mg/kg	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
2-aminoethanol	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2-aminoethanol	1720	1100	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not applicable.	Not applicable.	Not applicable.	Not applicable.
UN proper shipping name				
Transport hazard class(es)				
Packing group				
Environmental hazards				
Additional information	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 5(a)2 proposed significant new use rules**: 3(2H)-Isothiazolone, 2-methyl-; 5-chloro-2-methyl-2H-isothiazol-3-one; 3(2H)-Isothiazolone, 2-methyl-

All components of this product are listed as active or exempt from the TSCA chemical inventory.

SARA 311/312

Classification : SKIN SENSITIZATION - Category 1

CERCLA

CERCLA: Hazardous substances.: acrylic acid: 5000 lbs. (2270 kg); ethyl acrylate: 1000 lbs. (454 kg); methyl methacrylate: 1000 lbs. (454 kg); sodium hydroxide: 1000 lbs. (454 kg); acrylic acid: 5000 lbs. (2270 kg); ammonia: 1000 lbs. (454 kg); 2-(2-ethoxyethoxy)ethanol: No RQ is being assigned to the generic or broad class.; styrene: 1000 lbs. (454 kg); ammonia: 1000 lbs. (454 kg); 29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper: No RQ is being assigned to the generic or broad class.; ammonia: 1000 lbs. (454 kg);

California Prop. 65

⚠ **WARNING**: This product can expose you to chemicals including Titanium dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

International regulations

Canadian lists

Canadian NPRI : The following components are listed: copper (and its compounds)

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SKIN SENSITIZATION - Category 1	Calculation method

History

Date of printing : 20-Dec-22

Date of issue/Date of revision : 14-Jun-22

Date of previous issue : 26-May-22

Version : 1.16

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

Flint Group has prepared this Safety Data Sheet ("SDS") in compliance with 29 CFR 1910.1200, understands that its customers may use this SDS to comply with that section, and believes that the data set forth herein are accurate as of the date hereof; however, this SDS shall not constitute a warranty with respect thereto.

SAFETY DATA SHEET

WIKB901U0P

Section 1. Identification

GHS product identifier : SF GCMI 90 BLACK ED. X [WIKB-901U]

Product type : Liquid.

SDS # : d2t8:o2vk:8j8

Relevant identified uses of the substance or mixture and uses advised against

Printing ink or additive.

Uses advised against	Reason
Not applicable.	

Supplier's details : Flint Group
14909 North Beck Road
Plymouth, MI 48170
United States of America

Emergency telephone number (with hours of operation) : For Product Questions call: +1 (864) 579-3870
For Health and Safety Questions call: +1 (734) 781-4600
After Hours Emergency Health/Safety Questions:
24 Hour Emergency Spill Contact: +1 (800) 424-9300 Chemtrec (US/Canada)

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
V0172806B Proprietary Amine Salt of Modified Acrylic Copolymer	1 - 5	V0172806B

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Carbon black	**CA British Columbia Provincial (Canada, 7/2018).** TWA: 3 mg/m³ 8 hours. Form: Inhalable **CA Ontario Provincial (Canada, 1/2018).** TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 3.5 mg/m³ 8 hours. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 3.5 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 7 mg/m³ 15 minutes. TWA: 3.5 mg/m³ 8 hours.
Limestone	**CA British Columbia Provincial (Canada, 7/2018).** TWA: 3 mg/m³ 8 hours. Form: Respirable dust TWA: 10 mg/m³ 8 hours. Form: Total dust STEL: 20 mg/m³ 15 minutes. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 10 mg/m³ 8 hours. Form: Total dust. **CA Alberta Provincial (Canada, 6/2018). Skin sensitizer.** 8 hrs OEL: 10 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Black.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melt point/Freeze point : Not available.

Boiling point : Not available.

Flash point : Higher than 93.3°C (200°F).

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : Not available.

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Density : 10.427 lbs/gal

Section 9. Physical and chemical properties

VOC data

VOC % by weight : 0.15

VOC % by volume : 0.19

VOC lbs/gallon : 0.02

VOC lbs/gal less water : 0.04

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Amine Salt of Modified Acrylic Copolymer; VW889-2046	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Section 11. Toxicological information

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not applicable.	Not applicable.	Not applicable.	Not applicable.
UN proper shipping name				
Transport hazard class(es)				
Packing group				
Environmental hazards				
Additional information	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

Section 16. Other information

History

Date of printing : 8/17/2019

Date of issue/Date of revision : 8/3/2019

Date of previous issue : 3/2/2019

Version : 1.02

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

Flint Group has prepared this Safety Data Sheet ("SDS") in compliance with 29 CFR 1910.1200, understands that its customers may use this SDS to comply with that section, and believes that the data set forth herein are accurate as of the date hereof; however, this SDS shall not constitute a warranty with respect thereto.

Beshada, Eshetu

From: Beshada, Eshetu
Sent: February 6, 2023 4:34 PM
To: Carolyne Bourassa <carolyne_bourassa@cascades.com>
Cc: Christopher Watson <chris_watson@cascades.com>; Burland Ross, Siobhan <Siobhan.BurlandRoss@gov.mb.ca>
Subject: File 6151.00 - Cascade Canada - Cascades Winnipeg Facility

Hello Carolyne,

As per my email below, I have reviewed the EAP. Please provide the following additional information to proceed with the process.

1. The attached EAP application form filled and signed.
2. You indicated that a sludge from a corrugator settling tank is pumped for disposal. Please provide the volume of sludge disposed and how frequent is the pumping takes place. Do you also know where it will be disposed?
3. You also indicated that a third party picks up hazardous waste. Please provide who picks the waste how frequent and the volume picked in a single pick up.
4. Is there any emission control equipment in the facility such as dust collection cyclone etc? If there is any which part of the operation is serviced using this emission control equipment.
5. What is the frequency and amount of baled cardboard scraps and other recyclables are sent to a recycling facility
6. Provide a floor plan of the facility clearly labelled for each operation or equipment arrangements.
7. Provide the zoning designation of the lot for the facility.
8. Provide some information with respect to traffic flow considering shipping and delivery truckes.
9. Provide a land title for the land of lease information.
10. Provide the proximity of the facility to residential buildings.
11. Have you ever received any compliant with respect to you operation which can be noise, traffic or dust related?

The review process will continue once we receive the above information. In the mean time, if you have any question on the above do not hesitate to contact me.

Regards

Eshetu Beshada, PhD., P. Eng.
Senior Environmental Engineer
Industrial and Wastewater Section
Ph: 204 250-1932

From: Beshada, Eshetu
Sent: February 1, 2023 9:32 AM
To: Carolyne Bourassa <carolyne_bourassa@cascades.com>
Cc: Christopher Watson <chris_watson@cascades.com>; Burland Ross, Siobhan <Siobhan.BurlandRoss@gov.mb.ca>
Subject: RE: Approval from Cascades Winnipeg

Hello Carolyne,

This is to acknowledge receipt of the EAP for Cascade Canada – Winnipeg facility. Once reviewed, I will get back to you as needed.

In the mean time, if you have any question do not hesitate to contact me at any time.

Regards

Eshetu Beshada, PhD., P. Eng.
Senior Environmental Engineer
Industrial and Wastewater Section
Ph: 204 250-1932

From: Carolyne Bourassa <carolyne_bourassa@cascades.com>
Sent: February 1, 2023 7:55 AM
To: Beshada, Eshetu <Eshetu.Beshada@gov.mb.ca>
Cc: Christopher Watson <chris_watson@cascades.com>
Subject: Approval from Cascades Winnipeg

Hello

The MECP has asked Cascades Winnipeg to submit an application for authorization to operate its plant. I am pleased to send you the file by email. The paper file with the payment is forwarded to you by the mill.

If you have any questions about the documents or comments, please do not hesitate to contact me.

Regards
Carolyne Bourassa

Carolyne Bourassa, M.Sc. Env
Conseillère en Environnement

CASCADES CS+, CRD services spécialisés
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Tel: 819-363-5750 Ext.: 55707
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