

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the DENR Administrative Order No. 2015-09 Rules and Procedures for the Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in Preparation of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances.

SECTION 1: Identification

1.1. Product identifier

Sharpshooter[™] Extra Strength No Rinse Mark Remover

Product Identification Numbers 70-0712-8533-5

1.2. Recommended use and restrictions on use

Recommended use

Light duty graffiti remover for washable hard surfaces, Hard Surface Cleaner

For Industrial or Professional use only

1.3. Supplier's details

ADDRESS:3M Philippines, 10th and 11th Floor, The Finance Center, 26th Street Corner 9th Avenue Bonifacio
Global City, Taguig City, 1634 PhilippinesTelephone:+632 827 11680E Mail:mcvillalva@mmm.comWebsite:www.3m.com/ph

1.4. Emergency telephone number

+632 827 11680

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Skin Corrosion/Irritation: Category 1B. Serious Eye Damage/Irritation: Category 1.

2.2. Label elements Signal word Danger

Symbols Corrosion |

Pictograms



Hazard statements H314

Causes severe skin burns and eye damage.

Precautionary statements

Prevention: P260 P280D	Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves, protective clothing, and eye/face protection.
Response:	
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.

2.3. Other hazards

May cause chemical gastrointestinal burns. This material has been tested for skin corrosion/irritation and the test results are reflected in the assigned classification.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
WATER	7732-18-5	80 - 95
2-BUTOXYETHANOL	111-76-2	3 - 6
ETHANOLAMINE	141-43-5	1 - 5
ALCOHOLS, C12-14-SECONDARY,	84133-50-6	0.5 - 1.5
ETHOXYLATED		
ALCOHOLS, C6-12 ETHOXYLATED	68439-45-2	0.5 - 1.5

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

Eye Contact:

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If Swallowed:

Rinse mouth. Do not induce vomiting. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Skin burns (localized redness, swelling, itching, intense pain, blistering, and tissue destruction). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

4.3. Indication of any immediate medical attention and special treatment required

Not applicable.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Material will not burn. Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Contain spill. For large spills, if necessary, get assistance from professional spill clean up team. For small spills, carefully neutralize spill by adding appropriate dilute acid such as vinegar. Work slowly to avoid boiling or spattering. Continue to add neutralizing agent until reaction stops. Let cool before collecting. Or use a commercially available caustic (alkaline or basic) spill clean-up kit. Follow kit directions exactly. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. Clean up residue with water. Cover, but do not seal for 48 hours. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Keep away from reactive metals (eg. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from areas where product may come into contact with food or pharmaceuticals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
2-BUTOXYETHANOL	111-76-2	ACGIH	TWA:20 ppm	A3: Confirmed animal
				carcin.
2-BUTOXYETHANOL	111-76-2	Philippines	TWA(8 hours):240 mg/m3(50	SKIN
		OELs	ppm)	
ETHANOLAMINE	141-43-5	ACGIH	TWA:3 ppm;STEL:6 ppm	
ETHANOLAMINE	141-43-5	Philippines	Limit value not established:	
		OELs		
ETHANOLAMINES	141-43-5	Philippines	TWA(8 hours):6 mg/m3(3	
		OELs	ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

Philippines OELs : Philippines. Threshold Limit Values for Airborne Contaminants

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended: Full Face Shield Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid		
Color	Colorless		
Odor	Mild Solvent		
Odor threshold	Not Applicable		
рН	12.5 - 13.5		
Melting point/Freezing point	Not Applicable		
Boiling point/Initial boiling point/Boiling range	> 100 °C		
Flash Point	No flash point		
Evaporation rate	Approximately 1 [Ref Std:WATER=1]		
Flammability Not Applicable			
Flammable Limits(LEL)	Not Applicable		
Flammable Limits(UEL)	Not Applicable		
Vapor Pressure	< 186,158.4 Pa [@ 55 °C]		
Vapor Density and/or Relative Vapor Density	Not Applicable		
Density	Approximately 1.002 g/ml		
Relative Density	Approximately 1.001 - 1.011 [<i>Ref Std</i> :WATER=1]		
Water solubility	Complete		
Solubility- non-water	Not Applicable		
Partition coefficient: n-octanol/ water	Not Applicable		
Autoignition temperature	Not Applicable		
Decomposition temperature	Not Applicable		
Kinematic Viscosity	No Data Available		
Volatile Organic Compounds	6 - 8 % weight [<i>Test Method</i> :calculated per CARB title 2]		
Percent volatile	80 - 100 % weight		
VOC Less H2O & Exempt Solvents	850 - 870 g/l [<i>Test Method</i> :calculated per CARB title 2]		

Particle Characteristics

Not Applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid None known.

10.5. Incompatible materials None known.

10.6. Hazardous decomposition products <u>Substance</u>

Condition

Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Oxides of Nitrogen	Not Specified

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:

Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Eye Contact:

Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion:

Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation- Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
2-BUTOXYETHANOL	Dermal	Guinea pig	LD50 > 2,000 mg/kg
2-BUTOXYETHANOL	Inhalation- Vapor (4 hours)	Guinea pig	LC50 > 2.6 mg/l
2-BUTOXYETHANOL	Ingestion	Guinea pig	LD50 1,200 mg/kg
ETHANOLAMINE	Inhalation- Vapor	official classifica tion	LC50 estimated to be 10 - 20 mg/l
ETHANOLAMINE	Dermal	Rabbit	LD50 2,504 mg/kg
ETHANOLAMINE	Ingestion	Rat	LD50 1,089 mg/kg
ALCOHOLS, C6-12 ETHOXYLATED	Dermal	Rabbit	LD50 1,500 mg/kg

ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	Dermal	Rat	LD50 > 14,000 mg/kg
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	Inhalation-	Rat	LC50 1.1 mg/l
	Dust/Mist		
	(4 hours)		
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	Ingestion	Rat	LD50 > 412 mg/kg
ALCOHOLS, C6-12 ETHOXYLATED	Ingestion	Rat	LD50 5,100 mg/kg
ATE = acute toxicity estimate			

Skin Corrosion/Irritation

Name	Species	Value
Overall product	In vitro	Corrosive
	data	
2-BUTOXYETHANOL	Rabbit	Irritant
ETHANOLAMINE	Rabbit	Corrosive
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	Professio	Irritant
	nal	
	judgemen	
	t	

Serious Eye Damage/Irritation

Name	Species	Value
2-BUTOXYETHANOL	Rabbit	Severe irritant
ETHANOLAMINE	Rabbit	Corrosive
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	Professio	Corrosive
	nal	
	judgemen	
	t	

Sensitization:

Skin Sensitization

Name	Species	Value
2-BUTOXYETHANOL	Guinea	Not classified
	pig	
ETHANOLAMINE	Guinea	Not classified
	pig	
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	Human	Not classified

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
2-BUTOXYETHANOL	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
ETHANOLAMINE	In Vitro	Not mutagenic
ETHANOLAMINE	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
2-BUTOXYETHANOL	Inhalation	Multiple	Some positive data exist, but the data are not
		animal	sufficient for classification
		species	

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
2-BUTOXYETHANOL	Dermal	Not classified for development	Rat	NOAEL 1,760 mg/kg/day	during gestation
2-BUTOXYETHANOL	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	during organogenesis
2-BUTOXYETHANOL	Inhalation	Not classified for development	Multiple animal species	NOAEL 0.48 mg/l	during organogenesis
ETHANOLAMINE	Dermal	Not classified for development	Rat	NOAEL 225 mg/kg/day	during organogenesis
ETHANOLAMINE	Ingestion	Not classified for development	Rat	NOAEL 450 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
2-BUTOXYETHANOL	Dermal	endocrine system	Not classified	Rabbit	NOAEL 902 mg/kg	6 hours
2-BUTOXYETHANOL	Dermal	liver	Not classified	Rabbit	LOAEL 72 mg/kg	not available
2-BUTOXYETHANOL	Dermal	kidney and/or bladder	Not classified	Rabbit	LOAEL 451 mg/kg	6 hours
2-BUTOXYETHANOL	Dermal	blood	Not classified	Multiple animal species	NOAEL Not available	
2-BUTOXYETHANOL	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
2-BUTOXYETHANOL	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
2-BUTOXYETHANOL	Inhalation	blood	Not classified	Multiple animal species	NOAEL Not available	
2-BUTOXYETHANOL	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
2-BUTOXYETHANOL	Ingestion	blood	Not classified	Multiple animal species	NOAEL Not available	
2-BUTOXYETHANOL	Ingestion	kidney and/or bladder	Not classified	Human	NOAEL Not available	poisoning and/or abuse
ETHANOLAMINE	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
ALCOHOLS, C12-14- SECONDARY, ETHOXYLATED	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure
						Duration
2-BUTOXYETHANOL	Dermal	blood	Not classified	Multiple	NOAEL Not	not available
				animal	available	
				species		
2-BUTOXYETHANOL	Dermal	endocrine system	Not classified	Rabbit	NOAEL 150	90 days
		-			mg/kg/day	-
2-BUTOXYETHANOL	Inhalation	liver	Not classified	Rat	NOAEL 2.4	14 weeks
					mg/l	
2-BUTOXYETHANOL	Inhalation	kidney and/or	Not classified	Rat	NOAEL 0.15	14 weeks
		bladder			mg/l	
2-BUTOXYETHANOL	Inhalation	blood	Not classified	Rat	LOAEL 0.15	6 months

					mg/l	
2-BUTOXYETHANOL	Inhalation	endocrine system	Not classified	Dog	LOAEL 1.9 mg/l	8 days
2-BUTOXYETHANOL	Ingestion	blood	Not classified	Rat	LOAEL 69 mg/kg/day	13 weeks
2-BUTOXYETHANOL	Ingestion	kidney and/or bladder	Not classified	Multiple animal species	NOAEL Not available	not available
ETHANOLAMINE	Inhalation	hematopoietic system liver	Not classified	Rat	NOAEL 0.1559 mg/l	28 days
ETHANOLAMINE	Inhalation	respiratory system	Not classified	Rat	LOAEL 0.0102 mg/l	28 days
ETHANOLAMINE	Inhalation	heart endocrine system immune system nervous system eyes kidney and/or bladder	Not classified	Rat	NOAEL 0.1559 mg/l	28 days
ETHANOLAMINE	Ingestion	hematopoietic system liver kidney and/or bladder respiratory system	Not classified	Rat	NOAEL Not available	

Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labeling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

GHS Acute 3: Harmful to aquatic life.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available

Material	Cas #	Organism	Туре	Exposure	Test Endpoint	Test Result
2- BUTOXVETHAN	111-76-2	Activated sludge	Experimental	16 hours	IC50	>1,000 mg/l
OL						
2- BUTOXYETHAN OL	111-76-2	Eastern oyster	Experimental	96 hours	LC50	89.4 mg/l
2- BUTOXYETHAN OL	111-76-2	Green algae	Experimental	72 hours	ErC50	1,840 mg/l
2- BUTOXYETHAN OL	111-76-2	Rainbow Trout	Experimental	96 hours	LC50	1,474 mg/l
2-	111-76-2	Water flea	Experimental	48 hours	EC50	1,550 mg/l

BUTOXYETHAN OL						
2- BUTOXYETHAN OL	111-76-2	Green algae	Experimental	72 hours	ErC10	679 mg/l
2- BUTOXYETHAN OL	111-76-2	Water flea	Experimental	21 days	NOEC	100 mg/l
ETHANOLAMIN E	141-43-5	Diatom	Experimental	72 hours	ErC50	198 mg/l
ETHANOLAMIN E	141-43-5	Green algae	Experimental	72 hours	ErC50	2.5 mg/l
ETHANOLAMIN E	141-43-5	Rainbow Trout	Experimental	96 hours	LC50	105 mg/l
ETHANOLAMIN E	141-43-5	Water flea	Experimental	48 hours	EC50	27.04 mg/l
ETHANOLAMIN E	141-43-5	Green algae	Experimental	72 hours	NOEC	1 mg/l
E ETHANOLAMIN E	141-43-5	Medaka	Experimental	41 days	NOEC	1.24 mg/l
ETHANOLAMIN E	141-43-5	Water flea	Experimental	21 days	NOEC	0.85 mg/l
ETHANOLAMIN E	141-43-5	Activated sludge	Experimental	30 minutes	IC50	>1,000 mg/l
ETHANOLAMIN E	141-43-5	Plant	Experimental	21 days	EC50	1,290 mg/kg (Dry Weight)
ETHANOLAMIN E	141-43-5	Redworm	Experimental	35 days	LC50	3,715 mg/kg (Dry Weight)
ETHANOLAMIN E	141-43-5	Springtail	Experimental	28 days	LC50	1,893 mg/kg (Dry Weight)
ALCOHOLS, C12- 14-SECONDARY, ETHOXYLATED	84133-50-6	Fathead Minnow	Estimated	96 hours	LC50	3.2 mg/l
ALCOHOLS, C12- 14-SECONDARY, ETHOXYLATED	84133-50-6	Water flea	Estimated	48 hours	EC50	7.3 mg/l
ALCOHOLS, C6- 12 ETHOXYLATED	68439-45-2	Common Carp	Analogous Compound	96 hours	LC50	1.2 mg/l
ALCOHOLS, C6- 12 ETHOXYLATED	68439-45-2	Green algae	Analogous Compound	72 hours	ErC50	0.43 mg/l
ALCOHOLS, C6- 12 ETHOXYLATED	68439-45-2	Water flea	Analogous Compound	48 hours	EC50	0.7 mg/l
ALCOHOLS, C6- 12 ETHOXYLATED	68439-45-2	Green algae	Analogous Compound	72 hours	NOEC	0.09 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
2- BUTOXYETHAN OL	111-76-2	Experimental Biodegradation	28 days	Carbon dioxide evolution	90.4 %CO2 evolution/THCO2 evolution	OECD 301B - Mod. Sturm or CO2
2- BUTOXYETHAN OL	111-76-2	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	100 %removal of DOC	OECD 302B Zahn- Wellens/EVPA
ETHANOLAMIN E	141-43-5	Experimental Biodegradation	28 days	Carbon dioxide evolution	80 %CO2 evolution/THCO2 evolution	
ETHANOLAMIN E	141-43-5	Experimental Biodegradation	21 days	Dissolv. Organic Carbon Deplet	>90 %removal of DOC	OECD 301A - DOC Die Away Test

ETHANOLAMIN E	141-43-5	Experimental Photolysis		Photolytic half-life (in air)	5.5 hours (t 1/2)	
ALCOHOLS, C12- 14-SECONDARY, ETHOXYLATED	84133-50-6	Estimated Biodegradation		Biological Oxygen Demand	>60 %BOD/COD	OECD 301F - Manometric Respiro
ALCOHOLS, C6- 12 ETHOXYLATED	68439-45-2	Analogous Compound Biodegradation	28 days	Carbon dioxide evolution	85 %CO2 evolution/THCO2 evolution	OECD 301B - Mod. Sturm or CO2

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
2- BUTOXYETHAN OL	111-76-2	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	0.81	
ETHANOLAMIN E	141-43-5	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-2.3	OECD 107 log Kow shke flsk mtd
ALCOHOLS, C12- 14-SECONDARY, ETHOXYLATED	84133-50-6	Estimated Bioconcentration		Log of Octanol/H2O part. coeff	2.72	
ALCOHOLS, C6- 12 ETHOXYLATED	68439-45-2	Analogous Compound Bioconcentration		Log of Octanol/H2O part. coeff	2.26	OECD 117 log Kow HPLC method

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

Not hazardous for transportation.

Marine Transport (IMDG)

UN Number:UN3267 Proper Shipping Name:CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. Technical Name:None assigned. Hazard Class/Division:8 Subsidiary Risk:None assigned. Packing Group:III Limited Quantity:Yes Marine Pollutant: None assigned. Marine Pollutant Technical Name: None assigned. Other Dangerous Goods Descriptions: None assigned.

Air Transport (IATA)

UN Number:UN3267 Proper Shipping Name:CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. Technical Name:None assigned. Hazard Class/Division:8 Subsidiary Risk:None assigned. Packing Group:III Limited Quantity:None assigned. Marine Pollutant: None assigned. Marine Pollutant Technical Name: None assigned. Other Dangerous Goods Descriptions: None assigned.

Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

SECTION 16: Other information

Revision information:

No revision information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Philippines SDSs are available at www.3m.com/ph