Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

SECTION 1: Identification

1.1. Product identifier
Sharpshooter™ Extra Strength No Rinse Mark Remover (Bulk Volumes)

Product Identification Numbers
70-0712-8530-1 70-0716-8311-7 70-0716-8314-1

1.2. Recommended use and restrictions on use

Recommended use
This no-rinse cleaner removes tough stains such as grease, lipstick, crayon, black heel marks, pencil marks and smoke film from most washable hard surfaces., Hard Surface Cleaner

1.3. Supplier's details
ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301 Petaling, Jaya, Selangor
Telephone: 03-7884 2888
E Mail: 3mmyehsr@mmm.com
Website: www.3M.com.my

1.4. Emergency telephone number
+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Serious Eye Damage/Irritation: Category 1.
Skin Corrosion/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

General:

P102	Keep out of reach of children.
P101	If medical advice is needed, have product container or label at hand.

Prevention:

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280D	Wear protective gloves, protective clothing, and eye/face protection.
P264	Wash thoroughly after handling.

Response:

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards

May cause chemical gastrointestinal burns.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
WATER	7732-18-5	80 - 95
2-BUTOXYETHANOL	111-76-2	3 - 7
ETHANOLAMINE	141-43-5	1 - 5
ALCOHOLS, C6-12, ETHOXYLATED	68439-45-2	0.5 - 1.5
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	84133-50-6	0.5 - 1.5
Potassium Hydroxide	1310-58-3	< 1
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.-HYDRO-.OMEGA.-HYDROXY-, MONO-c10-14-ALKYL ETHERS, PHOSPHATES	68585-36-4	< 0.5
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	64-02-8	< 0.5

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
See Section 11.1. Information on toxicological effects.

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
Keep out of reach of children. 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 in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight. 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	Malaysia OELs	TWA(8 hours):96.7 mg/m3(20 ppm)	SKIN
Potassium Hydroxide	1310-58-3	ACGIH	CEIL:2 mg/m3	
Potassium Hydroxide	1310-58-3	Malaysia OELs	CEIL:2 mg/m3	
ETHANOLAMINE	141-43-5	ACGIH	TWA:3 ppm;STEL:6 ppm	
ETHANOLAMINE	141-43-5	Malaysia OELs	TWA(8 hours):7.5 mg/m3(3 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists
CMRG : Chemical Manufacturer's Recommended Guidelines
Malaysia OELs : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations
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*
pH	12.7 - 13.4
Melting point/Freezing point	*Not Applicable*
Boiling point/Initial boiling point/Boiling range	> 100 ºC
Flash Point	No flash point
Evaporation rate	Approximately 1 [*Ref Std:*WATER=1]
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	< 186,158.4 Pa [@ 55 ºC]
Vapor Density	*Not Applicable*
Density	Approximately 1.002 g/ml
Relative Density	Approximately 1.001 - 1.011 [*Ref Std:*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*
Viscosity	< 100 mPa-s
Volatile Organic Compounds	6 - 8 % weight [*Test Method:*calculated per CARB title 2]
Percent volatile	80 - 100 % weight
VOC Less H2O & Exempt Solvents	850 - 870 g/l [*Test Method:*calculated per CARB title 2]

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

Substance	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 1,414 mg/kg
ETHANOLAMINE	Inhalation-Vapor	official classification	LC50 estimated to be 10 - 20 mg/l
ETHANOLAMINE	Dermal	Rabbit	LD50 1,000 mg/kg
ETHANOLAMINE	Ingestion	Rat	LD50 1,720 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-Dust/Mist (4 hours)	Rat	LC50 1.1 mg/l
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	Ingestion	Rat	LD50 > 412 mg/kg
ALCOHOLS, C6-12, ETHOXYLATED	Ingestion	Rat	LD50 5,100 mg/kg
Potassium Hydroxide	Dermal	Rabbit	LD50 > 1,260 mg/kg
Potassium Hydroxide	Ingestion	Rat	LD50 273 mg/kg
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.5 mg/l
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Ingestion	Rat	LD50 1,658 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product	In vitro data	Corrosive
2-BUTOXYETHANOL	Rabbit	Irritant
ETHANOLAMINE	Rabbit	Corrosive
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	Professional judgement	Irritant
Potassium Hydroxide	Rabbit	Corrosive
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
2-BUTOXYETHANOL	Rabbit	Severe irritant
ETHANOLAMINE	Rabbit	Corrosive
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	Professional judgement	Corrosive
Potassium Hydroxide	Rabbit	Corrosive
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
2-BUTOXYETHANOL	Guinea pig	Not classified
ETHANOLAMINE	Guinea	Not classified

	pig	
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	Human	Not classified
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Human and animal	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
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	In Vitro	Some positive data exist, but the data are not sufficient for classification
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

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

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 616 mg/kg/day	during organogenesis
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Ingestion	Not classified for female reproduction	Rat	NOAEL 250 mg/kg/day	4 generation
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Ingestion	Not classified for male reproduction	Rat	NOAEL 250 mg/kg/day	4 generation
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Ingestion	Not classified for development	Rat	LOAEL 1,000 mg/kg/day	during gestation

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	Professional judgement	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	
Potassium Hydroxide	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL not available	
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	Irritation Positive	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
2-BUTOXYETHANOL	Dermal	blood	Not classified	Multiple animal species	NOAEL Not available	not available
2-BUTOXYETHANOL	Dermal	endocrine system	Not classified	Rabbit	NOAEL 150 mg/kg/day	90 days
2-BUTOXYETHANOL	Inhalation	liver	Not classified	Rat	NOAEL 2.4 mg/l	14 weeks
2-BUTOXYETHANOL	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.15 mg/l	14 weeks
2-BUTOXYETHANOL	Inhalation	blood	Not classified	Rat	LOAEL 0.15 mg/l	6 months
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	liver | kidney and/or bladder | respiratory system	Not classified	Multiple animal species	NOAEL 0.656 mg/l	5 weeks
ETHANOLAMINE	Ingestion	hematopoietic system | liver | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL Not available	
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 3 mg/m3	13 weeks
TETRASODIUM	Inhalation	liver | heart | skin |	Not classified	Rat	NOAEL 15	13 weeks

ETHYLENEDIAMINETETRAACETATE		endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles | nervous system | eyes | kidney and/or bladder | vascular system			mg/m3	
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Ingestion	hematopoietic system | liver	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	Ingestion	heart | gastrointestinal tract | muscles | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 5,000 mg/kg/day	13 weeks

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	Type	Exposure	Test Endpoint	Test Result
2-BUTOXYETHANOL	111-76-2	Eastern oyster	Experimental	96 hours	Lethal Concentration 50%	89.4 mg/l
2-BUTOXYETHANOL	111-76-2	Green Algae	Experimental	72 hours	Effect Concentration 50%	1,840 mg/l
2-BUTOXYETHANOL	111-76-2	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	1,474 mg/l
2-BUTOXYETHANOL	111-76-2	Water flea	Experimental	48 hours	Effect Concentration 50%	1,550 mg/l
2-BUTOXYETH	111-76-2	Green Algae	Experimental	72 hours	Effect Concentration	679 mg/l

ANOL					10%	
2-BUTOXYETHANOL	111-76-2	Water flea	Experimental	21 days	No obs Effect Conc	100 mg/l
ETHANOLAMINE	141-43-5	Common Carp	Experimental	96 hours	Lethal Concentration 50%	349 mg/l
ETHANOLAMINE	141-43-5	Green Algae	Experimental	72 hours	Effect Concentration 50%	2.5 mg/l
ETHANOLAMINE	141-43-5	Water flea	Experimental	48 hours	Effect Concentration 50%	65 mg/l
ETHANOLAMINE	141-43-5	Green algae	Experimental	72 hours	No obs Effect Conc	1 mg/l
ETHANOLAMINE	141-43-5	Ricefish	Experimental	41 days	No obs Effect Conc	1.24 mg/l
ETHANOLAMINE	141-43-5	Water flea	Experimental	21 days	No obs Effect Conc	0.85 mg/l
ALCOHOLS, C6-12, ETHOXYLATED	68439-45-2		Data not available or insufficient for classification			
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	84133-50-6	Fathead Minnow	Estimated	96 hours	Lethal Concentration 50%	3.2 mg/l
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	84133-50-6	Water flea	Estimated	48 hours	Effect Concentration 50%	7.3 mg/l
Potassium Hydroxide	1310-58-3		Data not available or insufficient for classification			
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.-HYDRO-.OMEGA.-HYDROXY-, MONO-c10-14-ALKYL ETHERS, PHOSPHATES	68585-36-4		Data not available or insufficient for classification			
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	64-02-8	Bluegill	Experimental	96 hours	Lethal Concentration 50%	1,030 mg/l
TETRASODIUM	64-02-8	Water flea	Experimental	24 hours	Effect Concentration	1,033 mg/l

ETHYLENEDIAMINETETRAACETATE					50%	
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	64-02-8	Water flea	Estimated	21 days	No obs Effect Conc	29 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
2-BUTOXYETHANOL	111-76-2	Experimental Biodegradation	28 days	Carbon dioxide evolution	90.4 % weight	OECD 301B - Mod. Sturm or CO2
ETHANOLAMINE	141-43-5	Experimental Biodegradation	21 days	Dissolv. Organic Carbon Deplet	>90 % weight	OECD 301A - DOC Die Away Test
ALCOHOLS, C6-12, ETHOXYLATED	68439-45-2	Estimated Biodegradation	28 days	Carbon dioxide evolution	85 % weight	OECD 301B - Mod. Sturm or CO2
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	84133-50-6	Estimated Biodegradation		Biological Oxygen Demand	>60 %BOD/COD	OECD 301F - Manometric Respiro
Potassium Hydroxide	1310-58-3	Data not availbl-insufficient			N/A	
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.-HYDRO-.OMEGA.-HYDROXY-, MONO-c10-14-ALKYL ETHERS, PHOSPHATES	68585-36-4	Data not availbl-insufficient			N/A	
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	64-02-8	Estimated Biodegradation	28 days	Biological Oxygen Demand	0 % BOD/ThBOD	OECD 301D - Closed Bottle Test

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
2-BUTOXYETHANOL	111-76-2	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	0.81	Other methods
ETHANOLAMINE	141-43-5	Experimental Bioconcentrati		Log of Octanol/H2O	-2.3	Other methods

		on		part. coeff		
ALCOHOLS, C6-12, ETHOXYLATED	68439-45-2	Estimated BCF-Carp	72 hours	Bioaccumulation Factor	310	Other methods
ALCOHOLS, C12-14-SECONDARY, ETHOXYLATED	84133-50-6	Estimated Bioconcentration		Log of Octanol/H2O part. coeff	2.72	Other methods
Potassium Hydroxide	1310-58-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.-HYDRO-.OMEGA.-HYDROXY-, MONO-c10-14-ALKYL ETHERS, PHOSPHATES	68585-36-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
TETRASODIUM ETHYLENEDIAMINETETRAACETATE	64-02-8	Estimated BCF - Bluegill	28 days	Bioaccumulation Factor	1.8	Bioconcentration: Flow-through

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

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and disposal.

SECTION 14: Transport Information

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

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 Malaysia SDSs are available at www.3M.com.my