



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Minister of Industry Decree No. 23/M-IND/PER/4/2013 and GHS Classification 4th Edition.

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SECTION 1: Identification

1.1. Product identifier

3M™ Perfect-It™ EX AC Rubbing Compound, 36057, 36058, 36060, 36061, 36062, 36063

Product Identification Numbers

LB-K100-2755-0	60-4402-8015-8	60-4551-0940-9	60-4551-0941-7	60-4551-0942-5
60-4551-0943-3	60-4551-0944-1	60-4551-1032-4	UU-0080-2114-7	

1.2. Recommended use and restrictions on use

Recommended use

Automotive

1.3. Supplier's details

ADDRESS: PT 3M Indonesia, Perkantoran Hijau Arkadia, Menara F, Lt. 8. Jl. TB. Simatupang Kav. 88, Jakarta Selatan, 12520, Indonesia

Telephone: +6221-29974000

Website: https://www.3m.co.id/3M/en_ID/company-id/

1.4. Emergency telephone number

(021)29974000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Skin Corrosion/Irritation: Category 3.

Skin Sensitizer: Category 1.

Acute Aquatic Toxicity: Category 2.

2.2. Label elements

Signal word

Warning

Symbols

Exclamation mark |

Pictograms**HAZARD STATEMENTS:**

H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H401	Toxic to aquatic life.

PRECAUTIONARY STATEMENTS**General:**

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

Prevention:

P280E	Wear protective gloves.
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Response:

P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
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Disposal:

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

Aspiration classification does not apply due to the viscosity of the product.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Water	7732-18-5	40 - 70
Hydrotreated Light Alkanes	64742-47-8	10 - 30
Aluminum Oxide (non-fibrous)	1344-28-1	10 - 20
Glycerin	56-81-5	1 - 5
White Mineral Oil (Petroleum)	8042-47-5	1 - 5
Alcohols, C10-16	67762-41-8	<= 1
Fatty Organic Compound	Trade Secret	<= 1
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	< 0.01

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 wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

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

Allergic skin reaction (redness, swelling, blistering, and itching).

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.

Hazardous Decomposition or By-Products

Substance

Hydrocarbons

Carbon monoxide

Carbon dioxide

Oxides of Nitrogen

Condition

During Combustion

During Combustion

During Combustion

During Combustion

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. 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 closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. 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. Avoid breathing 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

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
Aluminum Oxide (non-fibrous)	1344-28-1	Indonesia OELs	TWA(Total inhalable dust)(8 hours):10 mg/m3;TWA(inhalable particulates)(8 hours):10 mg/m3;TWA(8 hours):10 mg/m3	
Aluminum, insoluble compounds	1344-28-1	ACGIH	TWA(respirable fraction):1 mg/m3	A4: Not class. as human carcin
Glycerin	56-81-5	Indonesia OELs	TWA(as mist)(8 hours):10 mg/m3	
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., SKIN
MINERAL OILS, HIGHLY-REFINED OILS	8042-47-5	ACGIH	TWA(inhalable fraction):5 mg/m3	A4: Not class. as human carcin
OIL MIST, MINERAL	8042-47-5	Indonesia OELs	TWA(as mist)(8 hours):5 mg/m3;STEL(as mist)(15 minutes):10 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

Indonesia OELs : Indonesia. Minister of Manpower and Transmigration Decree No. 13/MEN/X/2011 concerning Threshold Values, Chemical and Physical Factors in the Workplace.

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:

Safety Glasses with side shields

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 particulates

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	White
Odor	Slight Pine
Odor threshold	<i>No Data Available</i>
pH	7.5 - 9
Melting point/Freezing point	<i>No Data Available</i>
Boiling point/Initial boiling point/Boiling range	<i>No Data Available</i>
Flash Point	No flash point
Evaporation rate	<i>No Data Available</i>
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>
Vapor Pressure	<i>No Data Available</i>
Vapor Density and/or Relative Vapor Density	<i>No Data Available</i>
Density	1.1 - 1.1 kg/l
Relative Density	1.05 - 1.1 [Ref Std: WATER=1]
Water solubility	<i>No Data Available</i>
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	<i>No Data Available</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity/Kinematic Viscosity	20,000 - 70,000 mPa-s
Volatile Organic Compounds	16.2 % weight [Test Method:calculated per CARB title 2]
Percent volatile	77.5 % weight
VOC Less H2O & Exempt Solvents	498 g/l [Test Method:calculated SCAQMD rule 443.1]
Molecular weight	<i>Not Applicable</i>

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>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

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:

Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

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
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Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Hydrotreated Light Alkanes	Inhalation-Vapor	Professional judgment	LC50 estimated to be 20 - 50 mg/l
Hydrotreated Light Alkanes	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydrotreated Light Alkanes	Ingestion	Rat	LD50 > 5,000 mg/kg
Aluminum Oxide (non-fibrous)	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminum Oxide (non-fibrous)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l
Aluminum Oxide (non-fibrous)	Ingestion	Rat	LD50 > 5,000 mg/kg
Glycerin	Dermal	Rabbit	LD50 estimated to be > 5,000 mg/kg
Glycerin	Ingestion	Rat	LD50 > 5,000 mg/kg
White Mineral Oil (Petroleum)	Dermal	Rabbit	LD50 > 2,000 mg/kg
White Mineral Oil (Petroleum)	Ingestion	Rat	LD50 > 5,000 mg/kg
Fatty Organic Compound	Ingestion	Rat	LD50 > 2,000 mg/kg
Fatty Organic Compound	Dermal	similar compounds	LD50 > 5,000 mg/kg
Fatty Organic Compound	Inhalation-Dust/Mist (4 hours)	similar compounds	LC50 > 17.5 mg/l
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Dermal	Rabbit	LD50 87 mg/kg
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.33 mg/l
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Ingestion	Rat	LD50 40 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Hydrotreated Light Alkanes	Rabbit	Mild irritant
Aluminum Oxide (non-fibrous)	Rabbit	No significant irritation
Glycerin	Rabbit	No significant irritation
White Mineral Oil (Petroleum)	Rabbit	No significant irritation
Fatty Organic Compound	Human	No significant irritation
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Hydrotreated Light Alkanes	Rabbit	Mild irritant
Aluminum Oxide (non-fibrous)	Rabbit	No significant irritation
Glycerin	Rabbit	No significant irritation
White Mineral Oil (Petroleum)	Rabbit	Mild irritant
Fatty Organic Compound	Rabbit	Severe irritant
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Rabbit	Corrosive

Sensitization:

Skin Sensitization

Name	Species	Value
Hydrotreated Light Alkanes	Guinea pig	Not classified
Glycerin	Guinea pig	Not classified
White Mineral Oil (Petroleum)	Guinea pig	Not classified
Fatty Organic Compound	Guinea pig	Not classified

2-METHYL-4-ISOTHIAZOLINE-3-ONE	Human and animal	Sensitizing
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Photosensitization

Name	Species	Value
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Human and animal	Not sensitizing

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
Hydrotreated Light Alkanes	In Vitro	Not mutagenic
Hydrotreated Light Alkanes	In vivo	Not mutagenic
Aluminum Oxide (non-fibrous)	In Vitro	Not mutagenic
White Mineral Oil (Petroleum)	In Vitro	Not mutagenic
Fatty Organic Compound	In Vitro	Not mutagenic
Fatty Organic Compound	In vivo	Not mutagenic
2-METHYL-4-ISOTHIAZOLINE-3-ONE	In vivo	Not mutagenic
2-METHYL-4-ISOTHIAZOLINE-3-ONE	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Hydrotreated Light Alkanes	Not Specified	Not available	Not carcinogenic
Aluminum Oxide (non-fibrous)	Inhalation	Rat	Not carcinogenic
Glycerin	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification
White Mineral Oil (Petroleum)	Dermal	Mouse	Not carcinogenic
White Mineral Oil (Petroleum)	Inhalation	Multiple animal species	Not carcinogenic
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Dermal	Mouse	Not carcinogenic
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Ingestion	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Hydrotreated Light Alkanes	Not Specified	Not classified for female reproduction	Rat	NOAEL Not available	1 generation
Hydrotreated Light Alkanes	Not Specified	Not classified for male reproduction	Rat	NOAEL Not available	1 generation
Hydrotreated Light Alkanes	Not Specified	Not classified for development	Rat	NOAEL Not available	1 generation
Glycerin	Ingestion	Not classified for female reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
Glycerin	Ingestion	Not classified for male reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
Glycerin	Ingestion	Not classified for development	Rat	NOAEL 2,000 mg/kg/day	2 generation
White Mineral Oil (Petroleum)	Ingestion	Not classified for female reproduction	Rat	NOAEL 4,350	13 weeks

				mg/kg/day	
White Mineral Oil (Petroleum)	Ingestion	Not classified for male reproduction	Rat	NOAEL 4,350 mg/kg/day	13 weeks
White Mineral Oil (Petroleum)	Ingestion	Not classified for development	Rat	NOAEL 4,350 mg/kg/day	during gestation
Fatty Organic Compound	Ingestion	Not classified for female reproduction	Rat	NOAEL 2,000 mg/kg/day	premating into lactation
Fatty Organic Compound	Ingestion	Not classified for male reproduction	Rat	NOAEL 2,000 mg/kg/day	41 days
Fatty Organic Compound	Ingestion	Not classified for development	Rat	NOAEL 2,000 mg/kg/day	premating into lactation
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Ingestion	Not classified for female reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Ingestion	Not classified for male reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Ingestion	Not classified for development	Rat	NOAEL 15 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
Fatty Organic Compound	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
2-METHYL-4-ISOTHIAZOLINE-3-ONE	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
Aluminum Oxide (non-fibrous)	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Aluminum Oxide (non-fibrous)	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Glycerin	Inhalation	respiratory system heart liver kidney and/or bladder	Not classified	Rat	NOAEL 3.91 mg/l	14 days
Glycerin	Ingestion	endocrine system hematopoietic system liver kidney and/or bladder	Not classified	Rat	NOAEL 10,000 mg/kg/day	2 years
White Mineral Oil (Petroleum)	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,381 mg/kg/day	90 days
White Mineral Oil (Petroleum)	Ingestion	liver immune system	Not classified	Rat	NOAEL 1,336 mg/kg/day	90 days

Aspiration Hazard

Name	Value
Hydrotreated Light Alkanes	Aspiration hazard
White Mineral Oil (Petroleum)	Aspiration hazard

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 2: Toxic 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
Hydrotreated Light Alkanes	64742-47-8	Green algae	Experimental	72 hours	EL50	>1,000 mg/l
Hydrotreated Light Alkanes	64742-47-8	Rainbow Trout	Experimental	96 hours	LL50	>1,000 mg/l
Hydrotreated Light Alkanes	64742-47-8	Water flea	Experimental	48 hours	EL50	>1,000 mg/l
Hydrotreated Light Alkanes	64742-47-8	Green algae	Experimental	72 hours	NOEL	1,000 mg/l
Aluminum Oxide (non-fibrous)	1344-28-1		Experimental	96 hours	LC50	>100 mg/l
Aluminum Oxide (non-fibrous)	1344-28-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Aluminum Oxide (non-fibrous)	1344-28-1	Water flea	Experimental	48 hours	LC50	>100 mg/l
Aluminum Oxide (non-fibrous)	1344-28-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Glycerin	56-81-5	Bacteria	Experimental	16 hours	NOEC	10,000 mg/l
Glycerin	56-81-5	Rainbow Trout	Experimental	96 hours	LC50	54,000 mg/l
Glycerin	56-81-5	Water flea	Experimental	48 hours	LC50	1,955 mg/l
White Mineral Oil (Petroleum)	8042-47-5	Water flea	Analogous Compound	48 hours	EL50	>100 mg/l
White Mineral Oil (Petroleum)	8042-47-5	Bluegill	Experimental	96 hours	LL50	>100 mg/l
White Mineral Oil (Petroleum)	8042-47-5	Green algae	Analogous Compound	72 hours	NOEL	100 mg/l
White Mineral Oil (Petroleum)	8042-47-5	Water flea	Analogous Compound	21 days	NOEL	>100 mg/l
Alcohols, C10-16	67762-41-8	Green algae	Analogous Compound	72 hours	ErC50	0.66 mg/l
Alcohols, C10-	67762-41-8	Rainbow Trout	Experimental	96 hours	No tox obs at	>100 mg/l

16					lmt of water sol	
Alcohols, C10-16	67762-41-8	Water flea	Experimental	48 hours	EC50	0.23 mg/l
Alcohols, C10-16	67762-41-8	Green algae	Analogous Compound	72 hours	NOEC	0.085 mg/l
Fatty Organic Compound	Trade Secret	Ciliated protozoa	Experimental	48 hours	IC50	1.58 mg/l
Fatty Organic Compound	Trade Secret	Fathead Minnow	Experimental	96 hours	LC50	1.01 mg/l
Fatty Organic Compound	Trade Secret	Green algae	Experimental	72 hours	ErC50	0.66 mg/l
Fatty Organic Compound	Trade Secret	Water flea	Experimental	48 hours	EC50	0.765 mg/l
Fatty Organic Compound	Trade Secret	Green algae	Experimental	72 hours	NOEC	0.085 mg/l
Fatty Organic Compound	Trade Secret	Water flea	Experimental	21 days	NOEC	0.014 mg/l
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Activated sludge	Experimental	3 hours	EC50	41 mg/l
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Green algae	Experimental	96 hours	EC50	0.23 mg/l
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Mysid Shrimp	Experimental	96 hours	LC50	1.81 mg/l
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Rainbow Trout	Experimental	96 hours	LC50	4.77 mg/l
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Water flea	Experimental	48 hours	EC50	0.934 mg/l
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Fathead Minnow	Experimental	33 days	NOEC	2.1 mg/l
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Green algae	Experimental	96 hours	NOEC	0.12 mg/l
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Water flea	Experimental	21 days	NOEC	0.044 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Hydrotreated Light Alkanes	64742-47-8	Estimated Biodegradation	28 days	Biological Oxygen Demand	69 %BOD/ThO D	OECD 301F - Manometric Respiro
Aluminum Oxide (non-fibrous)	1344-28-1	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Glycerin	56-81-5	Experimental Biodegradation	14 days	Biological Oxygen Demand	63 %BOD/ThO D	OECD 301C - MITI (I)

White Mineral Oil (Petroleum)	8042-47-5	Experimental Biodegradation	28 days	Carbon dioxide evolution	0 %CO2 evolution/THC O2 evolution	OECD 301B - Mod. Sturm or CO2
Alcohols, C10-16	67762-41-8	Experimental Biodegradation	28 days	Biological Oxygen Demand	≥80 %BOD/Th OD	OECD 301F - Manometric Respiro
Alcohols, C10-16	67762-41-8	Experimental Photolysis		Photolytic half-life (in air)	2.2 days (t 1/2)	
Fatty Organic Compound	Trade Secret	Experimental Biodegradation	28 days	Biological Oxygen Demand	100 %BOD/CO D	
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Experimental Biodegradation	29 days	Carbon dioxide evolution	50 %CO2 evolution/THC O2 evolution	OECD 301B - Mod. Sturm or CO2

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Hydrotreated Light Alkanes	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminum Oxide (non-fibrous)	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Glycerin	56-81-5	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-1.76	
White Mineral Oil (Petroleum)	8042-47-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Alcohols, C10-16	67762-41-8	Modeled Bioconcentration		Bioaccumulation Factor	117	Catalogic™
Alcohols, C10-16	67762-41-8	Modeled Bioconcentration		Bioaccumulation Factor	661	Catalogic™
Alcohols, C10-16	67762-41-8	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	4.8	
Fatty Organic Compound	Trade Secret	Modeled Bioconcentration		Bioaccumulation Factor	117	Catalogic™
Fatty Organic Compound	Trade Secret	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	5.13	
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-0.486	

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. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste. 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

Local Regulations

Land Transport: In accordance with Director General of Land Transportation Decree No. SK.725/AJ.302/DRJD/2004 which refer to UN Standard.

Sea Transport: In accordance with Minister of Transportation Decree No. KM 2/2010 which refer to IMDG Code Standard.

International Regulations

UN No.: Not applicable

UN Proper Shipping Name: Not applicable

Transportation Class (IMO): Not applicable

Transportation Class (IATA): Not applicable

Packing Group: Not applicable

Marine Pollutant: Not applicable

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 material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. 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.

Local Inventory Status

Addendum I Government Regulation No. 74/2001:

List of Hazardous Substances Approved for Use :

DIETHANOLAMINE is listed as a Hazardous Substance Approved for Use.
Ethanolamine is listed as a Hazardous Substance Approved for Use.
ETHYL ACRYLATE is listed as a Hazardous Substance Approved for Use.
ETHYLENE OXIDE is listed as a Hazardous Substance Approved for Use.
Formaldehyde is listed as a Hazardous Substance Approved for Use.
Glycerin is listed as a Hazardous Substance Approved for Use.

Addendum II Government Regulation No. 74/2001:

Tab.1 List of Prohibited Substances for Use:

None of the substances are listed as a Prohibited Substance for Use.

Addendum II Government Regulation No. 74/2001:

Tab.2 List of Restricted Substances for Use:

ETHYLENE OXIDE is listed as a Restricted Substance for Use.

Addendum I Ministry of Health Regulation No. 472/1996:

List and Classification of Hazardous Substances for Health:

1,4-DIOXANE is listed and classified as a Hazardous Substance for Health.
ACETALDEHYDE is listed and classified as a Hazardous Substance for Health.
ETHYLENE OXIDE is listed and classified as a Hazardous Substance for Health.
Formaldehyde is listed and classified as a Hazardous Substance for Health.

Addendum I Act of Minister of Industry and Trade No. 254/MPP/KEP/2000

List of Hazardous Substances that are Regulated to Import Trade System:

Formaldehyde is listed as a Hazardous Substance that is Regulated to Import Trade System
Triethanolamine is listed as a Hazardous Substance that is Regulated to Import Trade System

SECTION 16: Other information

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3M Indonesia SDSs are available at https://www.3m.co.id/3M/en_ID/company-id/