Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the JIS-GHS and its modifications.

This Safety Data Sheet is published for the Japan region and the information on this SDS is may not be applicable for other countries or regions.

SECTION 1: Identification

1.1. Product identifier
Hard 2-L 5985

1.2. Suppliers details

Supplier: ELM Inc.
ADDRESS: 2398 Kaseda-Miyabara, Minamisatsuma, Kagoshima, 897-1124, Japan
Division: 1st Development Department
Phone: +81-993-53-6930

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Skin Sensitizer: Category 1.
Specific Target Organ Toxicity (central nervous system): Category 3.

2.2. Label elements
SIGNAL WORD
Warning

Symbols
Exclamation Mark |

Pictograms

HAZARD STATEMENTS

H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.

PRECAUTIONARY STATEMENTS

Prevention:

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P280E	Wear protective gloves.

Response:

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

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
WATER	7732-18-5	55 - 75
Aluminum Oxide	1344-28-1	5 - 15
PETROLEUM	Trade Secret	5 - 10
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8	5 - 10
White mineral oil (petroleum)	8042-47-5	1 - 5
SYNTHETIC ISOPARAFFINIC HYDROCARBON	Trade Secret	1 - 5
GLYCERIN	56-81-5	1 - 5
Triethanolamine	102-71-6	< 0.5
Stabilizer	Trade Secret	< 0.1
Stabilizer	Trade Secret	< 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
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
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

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
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.

6.2. Environmental precautions
Avoid release to the environment.

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. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
For industrial or professional use only. 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. Wash contaminated clothing before reuse. Combustible dust may form by action of this product on another material (substrate). Dust generated from the substrate during use of this product may be explosive

if in sufficient concentration with an ignition source. Dust deposits should not be allowed to accumulate on surfaces because of the potential for secondary explosions.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep container tightly closed. Store away from heat. Store away from acids.

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
Triethanolamine	102-71-6	ACGIH	TWA:5 mg/m3	
Aluminum Oxide	1344-28-1	JSOH OELs	TWA(as respirable dust)(8 hours):0.5 mg/m3;TWA(as total dust)(8 hours):2 mg/m3	
Aluminum, insoluble compounds	1344-28-1	ACGIH	TWA(respirable fraction):1 mg/m3	A4: Not class. as human carcin
JET FUELS (NON-AEROSOL), AS TOTAL HYDROCARBON VAPOR	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., Skin Notation
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., Skin Notation
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	JSOH OELs	TWA(as mist)(8 hours):3 mg/m3	1: Known carcinogen
PETROLEUM	Trade Secret	Manufacturer determined	TWA:100 ppm	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
ISHL : Japan. ISHL. (Workplace Environment Assessment Standards)
JSOH OELs : Japan. JSOH. (Japan Society of Occupational Health: Advisory Opinion on Permissible [Exposure] Limits)
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m3: milligrams per cubic metre
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining. 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. Provide local exhaust at process emission sources to control exposure near the source and to prevent the escape of dust into the work area. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the 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 organic vapors and 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
Specific Physical Form:	Emulsion
Appearance/Odor	petroleum odor, white
Odor threshold	*No Data Available*
pH	8.1 - 8.5
Melting point/Freezing point	*No Data Available*
Boiling point/Initial boiling point/Boiling range	100 °C
Flash Point	94 °C
Evaporation rate	[*Ref Std:* BUOAC=1]*No Data Available*
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapor Pressure	*No Data Available*
Vapor Density	[*Ref Std:* AIR=1]*No Data Available*
Density	*No Data Available*
Relative Density	[*Ref Std:* WATER=1]*No Data Available*
Water solubility	*No Data Available*

Solubility- non-water	Complete
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity	14 - 21 Pa-s
Volatile Organic Compounds	*No Data Available*
Percent volatile	*No Data Available*
VOC Less H2O & Exempt Solvents	*No Data Available*

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat
Temperatures above the boiling point

10.5. Incompatible materials
Strong acids

10.6. Hazardous decomposition products

Substance	Condition
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	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.

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.

May cause additional health effects (see below).

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:
Contact with the eyes during product use is not expected to result in significant irritation. Dust created by cutting, grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

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

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:
Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

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
Aluminum Oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminum Oxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l
Aluminum Oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Dermal	Rabbit	LD50 > 3,160 mg/kg
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 3 mg/l
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Ingestion	Rat	LD50 > 5,000 mg/kg
PETROLEUM	Inhalation-Vapor		LC50 estimated to be 20 - 50 mg/l
PETROLEUM	Dermal	Rabbit	LD50 > 3,000 mg/kg
PETROLEUM	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
Triethanolamine	Dermal	Rabbit	LD50 > 2,000 mg/kg
Triethanolamine	Ingestion	Rat	LD50 9,000 mg/kg
Stabilizer	Dermal	Rabbit	LD50 87 mg/kg
Stabilizer	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.33 mg/l
Stabilizer	Ingestion	Rat	LD50 40 mg/kg
Stabilizer	Dermal	Rabbit	LD50 87 mg/kg
Stabilizer	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.33 mg/l
Stabilizer	Ingestion	Rat	LD50 40 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Aluminum Oxide	Rabbit	No significant irritation
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Rabbit	Mild irritant
PETROLEUM	Rabbit	Irritant
GLYCERIN	Rabbit	No significant irritation
White mineral oil (petroleum)	Rabbit	No significant irritation
Triethanolamine	Rabbit	Minimal irritation
Stabilizer	Rabbit	Corrosive
Stabilizer	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Aluminum Oxide	Rabbit	No significant irritation
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Rabbit	Mild irritant
PETROLEUM	Rabbit	No significant irritation
GLYCERIN	Rabbit	No significant irritation
White mineral oil (petroleum)	Rabbit	Mild irritant
Triethanolamine	Rabbit	Mild irritant
Stabilizer	Rabbit	Corrosive
Stabilizer	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Guinea pig	Not sensitizing
PETROLEUM	Guinea pig	Not sensitizing
GLYCERIN	Guinea pig	Not sensitizing
White mineral oil (petroleum)	Guinea pig	Not sensitizing
Triethanolamine	Human	Some positive data exist, but the data are not sufficient for classification
Stabilizer	Human and animal	Sensitizing
Stabilizer	Human and animal	Sensitizing

Photosensitization

Name	Species	Value
Stabilizer	Human and animal	Not sensitizing
Stabilizer	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
Aluminum Oxide	In Vitro	Not mutagenic
HYDROTREATED LIGHT PETROLEUM DISTILLATES	In Vitro	Not mutagenic

PETROLEUM	In vivo	Not mutagenic
PETROLEUM	In Vitro	Some positive data exist, but the data are not sufficient for classification
White mineral oil (petroleum)	In Vitro	Not mutagenic
Triethanolamine	In Vitro	Not mutagenic
Triethanolamine	In vivo	Not mutagenic
Stabilizer	In vivo	Not mutagenic
Stabilizer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Stabilizer	In vivo	Not mutagenic
Stabilizer	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Aluminum Oxide	Inhalation	Rat	Not carcinogenic
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
PETROLEUM	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
PETROLEUM	Inhalation	Human and animal	Some positive data exist, but the data are not sufficient for classification
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
Triethanolamine	Dermal	Multiple animal species	Not carcinogenic
Triethanolamine	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification
Stabilizer	Dermal	Mouse	Not carcinogenic
Stabilizer	Ingestion	Rat	Not carcinogenic
Stabilizer	Dermal	Mouse	Not carcinogenic
Stabilizer	Ingestion	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
PETROLEUM	Inhalation	Not toxic to development	Rat	NOAEL 2.4 mg/l	during organogenesis
GLYCERIN	Ingestion	Not toxic to female reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
GLYCERIN	Ingestion	Not toxic to male reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
GLYCERIN	Ingestion	Not toxic to development	Rat	NOAEL 2,000 mg/kg/day	2 generation
White mineral oil (petroleum)	Ingestion	Not toxic to female reproduction	Rat	NOAEL 4,350 mg/kg/day	13 weeks
White mineral oil (petroleum)	Ingestion	Not toxic to male reproduction	Rat	NOAEL 4,350 mg/kg/day	13 weeks
White mineral oil (petroleum)	Ingestion	Not toxic to development	Rat	NOAEL 4,350	during gestation

				mg/kg/day	
Triethanolamine	Ingestion	Not toxic to development	Mouse	NOAEL 1,125 mg/kg/day	during organogenesis
Stabilizer	Ingestion	Not toxic to female reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
Stabilizer	Ingestion	Not toxic to male reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
Stabilizer	Ingestion	Not toxic to development	Rat	NOAEL 15 mg/kg/day	during organogenesis
Stabilizer	Ingestion	Not toxic to female reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
Stabilizer	Ingestion	Not toxic to male reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
Stabilizer	Ingestion	Not toxic to 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
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
PETROLEUM	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
PETROLEUM	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
PETROLEUM	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 6.5 mg/l	4 hours
PETROLEUM	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Stabilizer	Inhalation	respiratory irritation | 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	Inhalation	pneumoconiosis | pulmonary fibrosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
PETROLEUM	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 4.6 mg/l	6 months
PETROLEUM	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1.9 mg/l	13 weeks
PETROLEUM	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for	Multiple animal	NOAEL 0.6 mg/l	90 days

			classification	species		
PETROLEUM	Inhalation	bone, teeth, nails, and/or hair | blood | liver | muscles	All data are negative	Rat	NOAEL 5.6 mg/l	12 weeks
PETROLEUM	Inhalation	heart	All data are negative	Multiple animal species	NOAEL 1.3 mg/l	90 days
GLYCERIN	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 3.91 mg/l	14 days
GLYCERIN	Inhalation	heart | liver | kidney and/or bladder	All data are negative	Rat	NOAEL 3.91 mg/l	14 days
GLYCERIN	Ingestion	endocrine system | hematopoietic system | liver | kidney and/or bladder	All data are negative	Rat	NOAEL 10,000 mg/kg/day	2 years
White mineral oil (petroleum)	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,381 mg/kg/day	90 days
White mineral oil (petroleum)	Ingestion	liver | immune system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,336 mg/kg/day	90 days
Triethanolamine	Dermal	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 2,000 mg/kg/day	2 years
Triethanolamine	Dermal	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 4,000 mg/kg/day	13 weeks
Triethanolamine	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1,000 mg/kg/day	2 years
Triethanolamine	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL 1,600 mg/kg/day	24 weeks

Aspiration Hazard

Name	Value
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Aspiration hazard
PETROLEUM	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:
Not acutely toxic to aquatic life by GHS criteria.

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
Stabilizer	Trade Secret	Rainbow Trout	Laboratory	96 hours	Lethal Concentration 50%	0.19 mg/l
Stabilizer	Trade Secret	Green algae	Laboratory	96 hours	Effect Concentration 50%	0.062 mg/l
Stabilizer	Trade Secret	Water flea	Laboratory	48 hours	Effect Concentration 50%	0.18 mg/l
GLYCERIN	56-81-5	Water flea	Experimental	24 hours	Effect Concentration 50%	>10,000 mg/l
GLYCERIN	56-81-5	Goldfish	Experimental	24 hours	Lethal Concentration 50%	>5,000 mg/l
Aluminum Oxide	1344-28-1	Green algae	Experimental	72 hours	Effect Concentration 50%	>100 mg/l
Aluminum Oxide	1344-28-1	Water flea	Experimental	48 hours	Effect Concentration 50%	>100 mg/l
Aluminum Oxide	1344-28-1	Fish	Experimental	96 hours	Lethal Concentration 50%	>100 mg/l
White mineral oil (petroleum)	8042-47-5	Bluegill	Experimental	96 hours	Lethal Level 50%	>100 mg/l
Stabilizer	Trade Secret	Water flea	Laboratory	21 days	No obs Effect Conc	0.172 mg/l
GLYCERIN	56-81-5		Modeled - using QSAR		No obs Effect Conc	>5,000 mg/l
Aluminum Oxide	1344-28-1	Green algae	Experimental	72 hours	No obs Effect Conc	>100 mg/l
White mineral oil (petroleum)	8042-47-5	Water flea	Experimental	21 days	No obs Effect Conc	>100 mg/l
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8		Data not available or insufficient for classification			
PETROLEUM	Trade Secret		Data not available or insufficient for classification			

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Aluminum Oxide	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
PETROLEUM	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
GLYCERIN	56-81-5	Experimental Biodegradation	14 days	Biological Oxygen Demand	63 % weight	OECD 301C - MITI (I)
White mineral oil (petroleum)	8042-47-5	Experimental Biodegradation	28 days	Carbon dioxide evolution	0 % weight	OECD 301B - Mod. Sturm or CO2
Stabilizer	Trade Secret	Laboratory Biodegradation	21 days	Biological Oxygen Demand	80 % weight	Other methods

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
White mineral oil (petroleum)	8042-47-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
PETROLEUM	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminum Oxide	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8	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	Other methods
Stabilizer	Trade Secret	Laboratory Bioaccumulation		Log of Octanol/H2O part. coeff	0.4	Other methods

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Hazardous to Ozone layer
No data available

SECTION 13: Disposal considerations

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

SECTION 14: Transport Information

Not hazardous for transportation. Follow general precautions described in Handling and storage section.

SECTION 15: Regulatory information

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

Regulated chemicals by Japanese law

	Japanese law		
Chemical substance	**ISHL Notification No.**	**PRTR; PRTR Law No.**	**Poisonous & deleterious law**
PETROLEUM	330 (PETROLEUM NAPHTHA)	N/A	N/A
White mineral oil (petroleum)	168 (MINERAL OIL)	N/A	N/A
Aluminum Oxide	189 (ALUMINUM OXIDE)	N/A	N/A
Triethanolamine	381 (TRIETHANOLAMINE)	N/A	N/A
HYDROTREATED LIGHT PETROLEUM DISTILLATES	380 (KEROSENE)	N/A	N/A
	551 (MINERAL SPIRIT)		

Applicable Japanese laws

Industrial Safety and Health Law : Organic solvent (Ordinance Annex No.6-2)
Fire Fighting Law : Designated flammable goods (Combustible liquid)
Industrial Safety and Health Law : Notification Chemicals (Ordinance Article No.18-2)

SECTION 16: Other information

Revision information:
No revision information

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