



## Safety Data Sheet

### Section 1. Identification

**Product name** : ALPHA® SLS-65 FLUX  
**Product code** : 115327  
**Product type** : Liquid.  
**Date of issue/Date of revision** : January 23 2020.

Manufacturer - Supplier	Telephone no.:	Emergency phone:
Alpha Assembly Solutions Inc. Global Headquarters 300 Atrium Drive Somerset, New Jersey 08873	Toll Free: (800) 367-5460 Main Phone: (908) 791-3000	DOMESTIC NORTH AMERICA 202-464-2554
Macdermid Performance Solution Hong Kong Limited / Alpha Assembly Solutions 8/F., Paul Y. Centre, 51 Hung To Road, Kwun Tong, Kowloon, Hong Kong	852-31903100	852-31903100 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
MacDermid Performance Solutions Japan K.K. 480-28 Higashitoyoda, Hiratsuka-shi, Kanagawa, Japan	81-463-53-3333	81-463-53-3333 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Assembly Solutions Korea Limited 1Ra 310, Sihwa Industrial Complex, 40, Okgucheonseo-ro, 131 beon-gil, Siheung-Si, Gyeonggi-Do, Korea	82-31-499-1451 Ext 2	82-31-499-1451 Ext 2 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Assembly Solutions (Shanghai) Trading Co., Ltd. 2 floor, 5 Building, No.1151 Lianxi Road, Pudong New Area Shanghai 201204 P.R.China	86-21-63900600	86-532-83889090 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Assembly Solutions (Taiwan) Limited No.20, Lane 12, Sec.2, Nan-Shan Rd., Luzhu District, Taoyuan City, 33860 Taiwan	886-3-3222721	886-3-3222721 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
MacDermid Performance Solutions, Cookson India Private Limited. Developed Plot no 16, North Phase, SIDCO Industrial estate, Ambattur, Chennai - 600098, India	044-26252666	044-26252666 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Assembly Solutions 14 Tuas Avenue 10 Singapore 639138	65 68611977	65 68611977 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Assembly Solutions (Shenzhen) Co., Ltd. Tang Xia Yong Village, Songgang Town Baoan District, Shenzhen, Peoples Republic of China Postal Code: 518105	86 755 2705 1100	86 532 83889090 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Advanced Materials 14 Joo Koon Crescent Singapore 629014	65 6430 0700	65 6430 0700 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Active Components (NZ) Ltd (Distributor) 2/14 Canaveral Drive Rosedale (0632), Auckland New Zealand	Tel: +64 9 443 9500	National Poisons Centre Free Phone: 0800 764 766 (0800 POISON) INTERNATIONAL, CALL Carechem 24: +65 3158 1074

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## Section 2. Hazards identification

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 2  
 SKIN CORROSION/IRRITATION - Category 3  
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
 TOXIC TO REPRODUCTION (Fertility) - Category 1B  
 SPECIFIC TARGET ORGAN TOXICITY (Narcotic effects) - Category 3  
 AQUATIC HAZARD (ACUTE) - Category 3  
 AQUATIC HAZARD (LONG-TERM) - Category 3

### GHS label elements

#### Hazard pictograms



#### Signal word

: Danger

#### Hazard statements

: Highly flammable liquid and vapor.  
 Causes serious eye irritation.  
 Causes mild skin irritation.  
 May damage fertility.  
 May cause drowsiness or dizziness.  
 Harmful to aquatic life with long lasting effects.

### Precautionary statements

#### Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling.

#### Response

: IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

#### Storage

: Store locked up.

#### Disposal

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

**Other hazards which do not result in classification** : Prolonged or repeated contact may dry skin and cause irritation.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	%	CAS number
Isopropyl alcohol	80-100	67-63-0
ester	1-10	-
Organic acid	1-10	-
Ester.	0.1-1.0	-
Surfactant.	0.1-1.0	-

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

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

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## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids open. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that mists are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 15 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes mild skin irritation. Defatting to the skin.
- Ingestion** : Can cause central nervous system (CNS) depression.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

## Section 4. First aid measures

**Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

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

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

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that mists are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

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

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## Section 6. Accidental release measures

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

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

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

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

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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

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

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Isopropyl alcohol	<b>ACGIH TLV (United States, 3/2017). Notes: Refers to Appendix A -- Carcinogens. ACGIH 2003 Adoption</b> STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours. <b>ACGIH TLV (United States, 3/2017).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
Organic acid	

Ingredient name	Exposure limits
Isopropyl alcohol	<b>TW Ministry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 6/2014).</b> STEL: 1228.75 mg/m <sup>3</sup> 15 minutes. STEL: 500 ppm 15 minutes. TWA: 983 mg/m <sup>3</sup> 8 hours. TWA: 400 ppm 8 hours. <b>ACGIH TLV (United States, 3/2017).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
Organic acid	

Ingredient name	Exposure limits
Isopropyl alcohol	<b>GBZ 2.1 (China, 4/2007).</b> PC-STEL: 700 mg/m <sup>3</sup> 15 minutes. PC-TWA: 350 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 3/2017).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
Organic acid	

Ingredient name	Exposure limits
Isopropyl alcohol	<b>Ministry of Employment and Labor (Republic of Korea, 8/2016).</b> STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours. <b>ACGIH TLV (United States, 3/2017).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
Organic acid	

Ingredient name	Exposure limits
Isopropyl alcohol	<b>DOSH USECHH (Malaysia, 4/2000).</b> TWA: 983 mg/m <sup>3</sup> 8 hours. TWA: 400 bpj 8 hours. <b>DOSH USECHH (Malaysia, 4/2000).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
Organic acid	

Ingredient name	Exposure limits
Isopropyl alcohol	<b>Workplace Safety and Health Act (Singapore, 2/2006).</b> PEL (short term): 1230 mg/m <sup>3</sup> 15 minutes. PEL (short term): 500 ppm 15 minutes. PEL (long term): 983 mg/m <sup>3</sup> 8 hours. PEL (long term): 400 ppm 8 hours. <b>Workplace Safety and Health Act (Singapore, 2/2006).</b> PEL (long term): 5 mg/m <sup>3</sup> 8 hours.
Organic acid	

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## Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Colorless.
- Odor** : Alcohol-like.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 80°C (176°F)
- Flash point** : Closed cup: 12°C (53.6°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.

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## Section 9. Physical and chemical properties

<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Vapor density</b>	: >1 [Air = 1]
<b>Relative density</b>	: 0.7998
<b>Solubility</b>	: Easily soluble in the following materials: cold water.
<b>VOC</b>	764.9 g/l
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: 399°C (750.2°F)
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Other Hazardous decomposition products</b>	: carbon oxides (CO, CO <sub>2</sub> )

## Section 11. Toxicological information

**Routes of entry** : Eye contact. Inhalation. Ingestion.

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isopropyl alcohol	LD50 Dermal	Rabbit	6290 mg/kg	-
	LD50 Oral	Rat	4.7 g/kg	-
ester	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	6400 mg/kg	-
Organic acid	LD50 Dermal	Rabbit	>7940 mg/kg	-
	LD50 Oral	Rabbit	>11000 mg/kg	-
	LD50 Oral	Rat	5050 mg/kg	-
	LD50 Oral	Rat	>11000 mg/kg	-
Ester.	LD50 Oral	Guinea pig	12900 mg/kg	-
	LD50 Oral	Mouse	15000 mg/kg	-
	LD50 Oral	Rat	7392 mg/kg	-
	LD50 Oral	Rat	7392 mg/kg	-
Surfactant.	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	6300 mg/kg	-

### Irritation/Corrosion

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## Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isopropyl alcohol  ester Organic acid	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	0.1 Milliliters	-
	Eyes - Mild irritant	Rabbit	-	10 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	0.25 Grams	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Ester.	-	Positive	-	Rat - Female	Oral: 2000 mg/kg	3 weeks During Pregnancy; 7 days per week
	-	Positive	-	Rat - Female	Oral: 1000 mg/kg	3 weeks During Pregnancy; 7 days per week

### Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Ester.	Positive - Oral	Rat - Female	400 mg/kg	17 days During Pregnancy

### Specific target organ toxicity

Name	Category	Route of exposure	Target organs
Isopropyl alcohol	Category 3	Not applicable.	Narcotic effects

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Inhalation.

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

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## Section 11. Toxicological information

- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes mild skin irritation. Defatting to the skin.
- Ingestion** : Can cause central nervous system (CNS) depression.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

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

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

- General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : May damage fertility.

### Numerical measures of toxicity

#### Acute toxicity estimates

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## Section 11. Toxicological information

Route	ATE value
Oral	5162.1 mg/kg

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Isopropyl alcohol	Acute EC50 10100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
ester	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours
Organic acid	Acute LC50 30.9 mg/l	Fish	96 hours
	Acute LC50 97000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Ester.	Acute LC50 >0.78 mg/l	Algae	96 hours
	Acute LC50 660 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 >0.78 mg/l	Fish	96 hours
	Acute LC50 >0.78 mg/l	Fish	96 hours
	Acute LC50 >0.78 mg/l	Fish	96 hours
Surfactant.	Acute EC50 253 mg/l	Algae	72 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Isopropyl alcohol	0.05	-	low
ester	0.49	-	low
Organic acid	0.093	3.162	low
Ester.	8.94	27	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

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

## Section 13. Disposal considerations




**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly

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## Section 13. Disposal considerations

internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	UN	IMDG	IATA
UN number	UN1219	UN1219	UN1219
UN proper shipping name	Isopropanol solution	Isopropanol solution	Isopropanol solution
Transport hazard class(es)	3 	3 	3 
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Additional information	-	-	-

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

## Section 15. Regulatory information

### Taiwan

SDS complies with the Regulation of Labeling and Hazard Communication of Hazardous Chemicals

**List of chemicals for which manufacturing or handling is defined as "work specially hazardous to health"** : This product contains substances "Specially hazardous to health": Isopropyl alcohol, methanol.

**List of chemicals reputed to be a "threat of imminent danger"** : This product contains substances considered to be a "Threat of imminent danger": Isopropyl alcohol.

**OSHA Article 29** : None of the components are listed.

**OSHA Article 30** : None of the components are listed.

### China

SDS complies with the General Rules for Classification and Hazardous Communication of Chemicals GB-13690-2009, GB-30000 series, and GB/T 16438-2008.

### List of Goods banned for Importing

None of the components are listed.

### Inventory of Hazardous Chemicals

Ingredient name	CAS number	Status
2-Propanol	67-63-0	Listed

### List of Goods banned for Exporting

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## Section 15. Regulatory information

None of the components are listed.

### [List of Toxic Chemicals Severely Restricted for Importing & Exporting by China](#)

None of the components are listed.

### [Inventory of Highly Toxic Chemicals](#)

None of the components are listed.

### [Catalogue of Hazardous Chemicals of Priority Management](#)

None of the components are listed.

### [Catalogue of Priority Hazardous Chemicals for Environmental Management](#)

None of the components are listed.

### [Other China Regulations](#)

Catalogue of Hazardous Chemicals (2015)

Classification & code of dangerous goods (GB 6944-2012)

Production Safety Law of the People's Republic of China

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Environmental Protection Law of the People's Republic of China

Regulation on Work Safety Licenses

Classification of transportation packing type of dangerous goods GB/T 15098-2008

General rules for classification and hazardous communication of chemicals GB 13690-2009

List of Dangerous Goods GB12268-2012

Occupational Exposure Limits (OELs) for hazardous chemicals GBZ 2.1-2007

Hazardous Chemicals Safety Management Ordinance China (2013 revised)

Safety data sheet for chemical products: content & order of sections GB/T 16483-2008

Rules for classification and labelling of chemicals GB30000-2013

Guidance on the compilation of safety data sheet for chemical products GB/T 17519-2013

### [Republic of Korea](#)

#### [A. Regulation according to ISHA](#)

**ISHA article 37** : None of the components are listed.  
(Harmful substances prohibited from manufacture)

**ISHA article 38** : None of the components are listed.  
(Harmful substances requiring permission)

**Article 2 of Youth Protection Act on Substances Hazardous to Youth** : Not applicable.

#### [Exposure Limits of Chemical Substances and Physical Factors](#)

The following components have an OEL:

Isopropyl alcohol

Organic acid

**ISHA Enforcement Regs Annex 11-3 (Exposure standards established for harmful factors)** : None of the components are listed.

**ISHA Enforcement Regs Annex 11-4 (Harmful factors subject to Work Environment Measurement)** : The following components are listed: Isopropyl alcohol

## Section 15. Regulatory information

**ISHA Enforcement Regs Annex 12-2 (Harmful Factors Subject to Special Health Check-up)** : The following components are listed: Isopropyl alcohol

**Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control)** : The following components are listed: Isopropyl alcohol

### B. Regulation according to Chemicals Control Act

**K-Reach Article 20 (Toxic chemicals)** : Not applicable

**K-Reach Article 27 (Prohibited)** : None of the components are listed.

**K-Reach Article 27 (Restricted)** : None of the components are listed.

**Existing Chemical Substances Subject to Registration** : None of the components are listed.

**CSCA Article 11 (TRI)** : The following components are listed: 2-Propanol

**CSCA Article 39 (Accident Precaution Chemicals)** : None of the components are listed.

**C. Dangerous Materials Safety Management Act** : Class: Class 4 - Flammable Liquid  
Item: 2. Class 1 petroleums - Water-insoluble liquid  
Threshold: 200 L  
Danger category: II  
Signal word: Contact with sources of ignition prohibited

**D. Wastes regulation** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Singapore - hazardous chemicals under government control

None.

### Japan

#### Fire Service Law

Category	Substance name/Type	Danger category	Signal word	Designated quantity
Category IV	Class I petroleums	II	Flammable - Keep Fire Away	200 L

**Fire Service Law - Obstructive materials** : Not listed

**Designated combustibles** : Not available. **Designated quantity** : Not available.

### Maritime Safety Law

#### Notification Regulating Transportation of Dangerous Materials by Sea

None of the components are listed.

#### Container class

None of the components are listed.

### ISHL

#### Use of specified chemical substances

None of the components are listed.

#### Label requirements

*Continued on next page*



## Section 15. Regulatory information

Ingredient name	%	Status
Propyl alcohol	≥90	Listed
Organic acid	≤3.0	Listed

### Chemicals requiring notification

Ingredient name	%	Status
Propyl alcohol	≥90	Listed
Organic acid	≤3.0	Listed

### Carcinogen

None of the components are listed.

### Mutagen

None of the components are listed.

**Corrosive liquid** : Not listed  
**ISHL Appendix 1** : Flammable liquid Class 3

**Lead regulation** : Not listed  
**Prevention of Tetraalkyl Lead Poisoning** : Not listed

**Harmful Substances Subject to Obtaining Permission for Manufacturing** : Not listed

**Harmful Substances, Prohibited for Manufacturing** : Not listed

**Dangerous Substances** : Not listed

**Organic solvents poisoning prevention** : Class 2

### Chemical Substances Control Law (CSCL)

Ingredient name	%	Status	
Isopropyl alcohol; 2-Propanol	80-100	Priority assessment	
Methanol	0.001-0.01	Priority assessment	

### Poisonous and Deleterious Substances

None of the components are listed.

### Pollutant Release and Transfer Registers (PRTR)

None of the components are listed.

**JSOH Carcinogen** : Not listed

**Law Concerning Prevention of Pollution of the Ocean and Maritime Disaster** : Not available.

**Road law** : Not available.

**List of Specially Controlled Industrial Waste** : Not listed

*Continued on next page*

## Section 15. Regulatory information

**Occupational Safety and Health Law** : Flammable liquid Class 3

### Explosives Control Law

None of the components are listed.

**High Pressure Gas Control Law** : Not available.

**Safety, health and environmental regulations specific for the product** : No known specific national and/or regional regulations applicable to this product (including its ingredients).

### International lists

#### National inventory

**Australia** : All components are listed or exempted.

**Canada** : All components are listed or exempted.

**China** : All components are listed or exempted.

**Europe** : All components are listed or exempted.

**Japan** : Not determined.

**Malaysia** : Not determined.

**New Zealand** : All components are listed or exempted.

**Philippines** : All components are listed or exempted.

**Republic of Korea** : All components are listed or exempted.

**Taiwan** : All components are listed or exempted.

**Thailand** : Not determined.

**Turkey** : Not determined.

**United States** : All components are listed or exempted.

**Viet Nam** : Not determined.

## Section 16. Other information

### History

**Date of issue/Date of revision** : January 23 2020.

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**Prepared by** : **Regulatory Affairs Department**  
enthone.msds@macdermidenthone.com

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

### Procedure used to derive the classification

**Section 16. Other information**

Classification	Justification
Flam. Liq. 2, H225 Skin Irrit. 3, H316 Eye Irrit. 2A, H319 Repr. 1B, H360 (Fertility) STOT SE 3, H336 Aquatic Acute 3, H402 Aquatic Chronic 3, H412	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

**References** : Not available.

✔ Indicates information that has changed from previously issued version.

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