

**Section 1. Identification**

**GHS product identifier** : INDULIN AA-86  
**Other means of identification** : Not available.  
**Product type** : Liquid. [Viscous liquid.]

**Relevant identified uses of the substance or mixture and uses advised against**

**Material uses** : Asphalt Emulsifier

**Supplier's details** : **Ingevity Corporation**  
5255 Virginia Avenue  
North Charleston  
South Carolina USA  
29406-3615  
  
www.ingevity.com  
email: sds@ingevity.com  
  
Tel: +1 843 740 2300, +1 800 458 4034  
(0800 - 1700 EST)

**Emergency telephone number (with hours of operation)** : +1 703 527 3887 (USA)  
4001-204937 (in China)  
CHEMTREC International

**Section 2. Hazards identification**

**Classification of the substance or mixture** : ACUTE TOXICITY (oral) - Category 5  
SKIN CORROSION/IRRITATION - Category 1B  
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1  
SKIN SENSITISATION - Category 1B  
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1  
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : May be harmful if swallowed.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
Causes serious eye damage.  
Very toxic to aquatic life.  
Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

## Section 2. Hazards identification

- Prevention** : Wear protective gloves: > 8 hours (breakthrough time): Buna-N or neoprene. Wear protective clothing: Recommended: lab coat , safety apron or chemical-resistant protective suit. Wear eye or face protection: Recommended: safety glasses with side-shields or splash goggles. Avoid release to the environment. Avoid breathing vapour. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
- Response** : Collect spillage. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
- 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** : None known.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Substance
- Other means of identification** : Not available.

Ingredient name	%	CAS number
Fatty amide derivative.	100	-

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.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes 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. If unconscious, place in recovery position and get medical attention

## Section 4. First aid measures

immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. Chemical burns must be treated promptly by a 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 damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. May cause an allergic skin reaction.
- Ingestion** : May be harmful if swallowed.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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 fumes 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.

## Section 4. First aid measures

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic 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  
nitrogen oxides

**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.

**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.

**Hazchem code** : 2X

## 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 spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised 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 spilt 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. Collect spillage.

### Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and transfer the spilt material and absorbent to an appropriate waste disposal container. Dispose of according to all federal, state and local applicable regulations.

## Section 6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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** : 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 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. 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 unlabelled 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

None.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

- 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

## Section 8. Exposure controls/personal protection

- 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye 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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: safety glasses with side-shields or 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. > 8 hours (breakthrough time): Buna-N or neoprene
- 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. Recommended: lab coat , safety apron or chemical-resistant protective suit
- 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. Recommended: In situations where misting or flying may occur, use appropriate certified respirators.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid. [Viscous liquid.]
- Colour** : Amber. [Dark]
- Odour** : Ammoniacal.
- Odour threshold** : Not applicable.
- pH** : 9 to 11 (5% in 50/50 IPA/water)
- Melting point** : -10.5°C (13.1°F)
- Boiling point** : >180°C (>356°F)
- Flash point** : Closed cup: 126°C (258.8°F) [Pensky-Martens] [Product does not sustain combustion.]
- Evaporation rate** : Not applicable.
- Flammability (solid, gas)** : Not applicable.
- Lower and upper explosive (flammable) limits** : Not available.

## Section 9. Physical and chemical properties

<b>Vapour pressure</b>	: 0 kPa (0 mm Hg)
<b>Vapour density</b>	: Not available.
<b>Relative density</b>	: 0.89
<b>Solubility</b>	: Insoluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: 5.6 to 7.3
<b>Auto-ignition temperature</b>	: 305°C (581°F)
<b>Decomposition temperature</b>	: Not available.
<b>SADT</b>	: Not available.
<b>Viscosity</b>	: Dynamic (room temperature): 125 mPa·s (125 cP) Kinematic (40°C (104°F)): 25 mm <sup>2</sup> /s (25 cSt)
<b>Other</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>	: No specific data.
<b>Incompatible materials</b>	: Reactive or incompatible with the following materials: oxidising materials and acids.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Fatty amide derivative.	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Fatty amide derivative.	Skin - Visible necrosis	Rabbit	-	3 minutes	24 hours

#### Conclusion/Summary

**Skin** : Corrosive material

#### Sensitisation

## Section 11. Toxicological information

Product/ingredient name	Route of exposure	Species	Result
Fatty amide derivative.	skin	Guinea pig	Sensitising

### Conclusion/Summary

**Skin** : May produce an allergic reaction.

### Mutagenicity

Product/ingredient name	Test	Experiment	Result
Fatty amide derivative.	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative

**Conclusion/Summary** : Not mutagenic in a standard battery of genetic toxicological tests.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

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

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. May cause an allergic skin reaction.
- Ingestion** : May be harmful if swallowed.

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

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.

## Section 11. Toxicological information

- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Delayed and immediate effects as well as 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

Product/ingredient name	Result	Species	Dose	Exposure
Fatty amide derivative.	Sub-acute NOAEL Oral	Rat - Male, Female	50 mg/kg	-
	Sub-acute NOAEL Oral	Rat - Male, Female	75 mg/kg	-

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- 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** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	2500 mg/kg

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Fatty amide derivative.	Acute EC10 0.32 mg/l Fresh water	Algae	72 hours
	Acute EC50 1.17 mg/l Fresh water	Algae	72 hours
	Acute LC50 0.94 mg/l Fresh water	Fish	96 hours
	Chronic EC10 0.07 mg/l Fresh water	Daphnia	21 days

## Section 12. Ecological information

### Persistence/degradability

Not available.

Product/ingredient name	Test	Result	Dose	Inoculum
Fatty amide derivative.	OECD 303A Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units	>99.997 % - Readily - 48 days	DOC	Activated sludge
	OECD 301D Ready Biodegradability - Closed Bottle Test	75 % - Readily - 28 days	ThOD	Activated sludge
	OECD 301D Ready Biodegradability - Closed Bottle Test	60 % - Readily - 28 days	ThOD	Activated sludge

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Fatty amide derivative.	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Fatty amide derivative.	5.6 to 7.3	-	high

### 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 minimised 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

### Section 14. Transport information

	UN	IMDG	IATA	DOT Classification
<b>UN number</b>	UN2735	UN2735	UN2735	UN2735
<b>UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S. (Fatty amide derivative.)	AMINES, LIQUID, CORROSIVE, N.O.S. (Fatty amide derivative.). Marine pollutant (Fatty amide derivative.)	Amines, liquid, corrosive, n.o.s. (Fatty amide derivative.)	Amines, liquid, corrosive, n.o.s. (Fatty amide derivative.). Marine pollutant (Fatty amide derivative.)
<b>Transport hazard class(es)</b>	8 	8  	8 	8  
<b>Packing group</b>	II	II	II	II
<b>Environmental hazards</b>	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.	Yes.
<b>Additional information</b>	<b>Special provisions</b> 274	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. <b>Emergency schedules</b> F-A, S-B <b>Special provisions</b> 274	The environmentally hazardous substance mark may appear if required by other transportation regulations. <b>Quantity limitation</b> Passenger and Cargo Aircraft: 1 L. Packaging instructions: 851. Cargo Aircraft Only: 30 L. Packaging instructions: 855. Limited Quantities - Passenger Aircraft: 0.5 L. Packaging instructions: Y840. <b>Special provisions</b> A3, A803	This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a. <b>Limited quantity</b> Yes. <b>Packaging instruction</b> Exceptions: 154. Non-bulk: 202. Bulk: 242. <b>Quantity limitation</b> Passenger aircraft/rail:

## Section 14. Transport information

				1 L. Cargo aircraft: 30 L. <b>Special provisions</b> B2, IB2, T11, TP1, TP27
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**Hazchem code** : 2X

**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

### China

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

**China inventory (IECSC)** : This material is listed or exempted.

### List of Goods banned for Importing

None of the components are listed.

### List of Goods banned for Exporting

None of the components are listed.

### List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

### Japan

#### Fire Service Law

Category	Substance name/Type	Danger category	Signal word	Designated quantity
Category IV	Class III petroleums	III	Flammable - Keep Fire Away	2000 L

**Substance to report** : Not listed

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

#### Maritime Safety Law

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

Ingredient name	List name	%	Status	Reference number
Fatty amide derivative.	Japan - Maritime Safety Law - Appendix 3 (Corrosive)	100	Listed	-

#### Container class

None of the components are listed.

### ISHL

#### Ordinance on the prevention of the hazard due to specified chemical substances

None of the components are listed.

**Lead regulation** : Not listed

## Section 15. Regulatory information

### Substances requiring labelling

None of the components are listed.

### Chemicals requiring notification

None of the components are listed.

### Carcinogen

None of the components are listed.

### Mutagen

None of the components are listed.

**Corrosive liquid** : Not listed

**Occupational Safety and Health Law** : Not applicable.

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

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

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

### Chemical Substances Control Law (CSCL)

None of the components are listed.

### Explosives Control Law

None of the components are listed.

### Poisonous and Deleterious Substances

None of the components are listed.

**JSOH Carcinogen** : Not listed

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

**Organic solvents poisoning prevention** : Not applicable.

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

### Pollutant Release and Transfer Registers (PRTR)

None of the components are listed.

**Road law** : Applicable

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

**Japan inventory** : **Japan inventory (CSCL)**: This material is listed or exempted.  
**Japan inventory (ISHL)**: Not determined.

## Section 15. Regulatory information

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

### South Korea

#### A. Regulation according to ISHA

**ISHA article 117 (Harmful substances prohibited from manufacture)** : This material is not listed.

**ISHA article 118 (Harmful substances requiring permission)** : This material is not listed.

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

#### Exposure Limits of Chemical Substances and Physical Factors

None of the components have an OEL.

**ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors)** : This material is not listed.

**ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement)** : This material is not listed.

**ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up)** : This material is not listed.

**Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control)** : This material is not listed.

#### B. Regulation according to Chemicals Control Act

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

**CCA Article 18 Prohibited (K-Reach Article 27)** : This material is not listed.

**CCA Article 20 Restricted (K-Reach Article 27)** : This material is not listed.

**CCA Article 11 (TRI)** : This material is not listed.

**Korea inventory** : Not determined.

## Section 15. Regulatory information

**CCA Article 39 (Accident Precaution Chemicals)** : This material is not listed.

**C. Dangerous Materials Safety Management Act** : **Class:** Class 4 - Flammable Liquid  
**Item:** 5. Class 3 petroleums - Water-insoluble liquid  
**Threshold:** 2000 L  
**Danger category:** III  
**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.

### E. Regulation according to other foreign laws

#### International regulations

##### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

##### Montreal Protocol

Not listed.

##### Stockholm Convention on Persistent Organic Pollutants

Not listed.

Not listed.

##### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

#### International lists

##### National inventory

**Australia** : This material is listed or exempted.  
**Canada** : This material is not listed in DSL but is listed in NDSL.  
**Japan** : **Japan inventory (CSCL):** This material is listed or exempted.  
**Japan inventory (ISHL):** Not determined.  
**New Zealand** : This material is listed or exempted.  
**Philippines** : Not determined.  
**Republic of Korea** : Not determined.  
**Taiwan** : This material is listed or exempted.  
**United States** : This material is active or exempted.

## Section 16. Other information

**Organisation that prepared the SDS** : Ingevity Product Stewardship & Regulatory Group  
 (regulatory@ingevity.com)

**Person who prepared the SDS** : Validated by C. Long on 8/2/2022.

#### History

**Date of issue/Date of revision** : 2022-08-02

**Date of previous issue** : 2020-10-26.

**Version** : 2

## Section 16. Other information

### Key to abbreviations

: ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
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)  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
UN = United Nations

### References

: Not available.

Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.