



SAFETY DATA SHEET

EMPICOL® LXV/N

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : EMPICOL® LXV/N
CAS number : 68585-47-7 [85586-07-8]
Product code : AC-000681
Internal code : AC-000681
Product description : UVCB
Product type : Solid.
Synonyms : (C10-C16) Alkylalcohol sulfuric acid, sodium salt; C10-C16 Alkyl alcohol sulfuric acid sodium salt; SDA 15-062-04; (C10-16) Alkyl alcohol sulfuric acid, sodium salt
Chemical name : Sulfuric acid, mono-C10-16-alkyl esters, sodium salts

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

Identified uses

Industrial applications: Surfactant.

1.3 Details of the supplier of the safety data sheet

Supplier : Innospec Limited
Innospec Manufacturing Park
Oil Sites Road
Ellesmere Port
Cheshire CH65 4EY
United Kingdom
Telephone no.: : +44 (0)151 355 3611 (24/7)
Fax no. : +44 (0)151 356 2349
e-mail address of person responsible for this SDS : sdsinfo@innospecinc.com
NON-emergency enquiries : corporatecommunications@innospecinc.com

1.4 Emergency telephone number

In Europe, Middle East, Africa, Asia Pacific and South America
24 hour / 7 day emergency response for our products is
provided by the NCEC CARECHEM 24 global network



The main regional centres are listed here in Section 1. Other local contact numbers for specific language support in Asia Pacific are listed in Section 16.

Country information	Emergency telephone number	Location
Europe (all countries, all languages)	: +44 (0) 1235 239 670	London, UK
Middle East, Africa (Arabic, French, English)	: +44 (0) 1235 239 671	Lebanon

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Middle East, Africa (French, Portuguese, English)	: +44 (0) 1235 239 670	London UK
Asia Pacific (all countries except China)	: +65 3158 1074	Singapore
China	: +86 10 5100 3039	Beijing China
South America (all countries except Brazil and Mexico)	: +1 215 207 0061	Philadelphia USA
Brazil	: +55 11 3197 5891	Brazil
Mexico	: +52 555 004 8763	Mexico

In USA, Canada and North America, 24 h/7 days of emergency response for our product is provided by the CHEMTREC(R) Emergency Call Center based in the USA.

Country information	: Emergency telephone number
USA	: 800 424 9300
Canada, Puerto Rico, Virgin Islands	: +1 800 424 9300
In case of difficulty using the toll-free number, or for ships at sea, call	: +1 703 527 3887

See section 16.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : UVCB

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 4, H302

Skin Irrit. 2, H315

Eye Dam. 1, H318

Aquatic Chronic 3, H412

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 - Harmful if swallowed.
H318 - Causes serious eye damage.
H315 - Causes skin irritation.
H412 - Harmful to aquatic life with long lasting effects.

Supplemental label elements : Not applicable.

Precautionary statements

General : Not applicable.

Prevention : P280 - Wear protective gloves. Wear eye or face protection.
P273 - Avoid release to the environment.

Response : P301 + P312 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
P305 + P310 - IF IN EYES: Immediately call a POISON CENTER or physician.

Storage : Not applicable.

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SECTION 2: Hazards identification

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : Sulfuric acid, mono-C10-16-alkyl esters, sodium salts

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

P: Not available. B: Not available. T: No.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

Substance/mixture : UVCB

Product/ingredient name	Identifiers	%	Classification	
			Regulation (EC) No. 1272/2008 [CLP]	Type
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	REACH #: 01-2119489463-28 EC: 271-557-7 [287-809-4] CAS: 68585-47-7 [85586-07-8, 90583-28-1]	60 - 100	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above.	[A]

Additional information

Type

[A] Constituent

[B] Impurity

[C] Stabilising additive

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

Our REACH (pre-) registrations DO NOT cover the following:

1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
 2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations
- Customers and other third parties importing and/or re-importing our products into Europe will need either:
- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
 - In the case of importation only, to make use of the "Only Representative" provisions, if available.

SECTION 4: First aid measures

4.1 Description of 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 immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie,

SECTION 4: First aid measures

- belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Remove dentures if any. Wash out mouth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
- 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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : 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

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : 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
sulfur oxides
metal oxide/oxides

5.3 Advice for firefighters

- 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 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. 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".

6.2 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.

6.3 Methods and material for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

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SECTION 6: Accidental release measures

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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.

7.2 Conditions for safe storage, including any incompatibilities

- Storage** : 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.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

- 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 monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures

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SECTION 8: Exposure controls/personal protection

for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	DNEL	Long term Inhalation	285 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	4060 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	85 mg/m ³	Consumers	Systemic
	DNEL	Long term Dermal	2440 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	24 mg/kg bw/day	Consumers	Systemic

PNECs

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	-	Fresh water	0.131 mg/l	Assessment Factors
	-	Marine water	0.013 mg/l	Assessment Factors
	-	Sewage Treatment Plant	1.35 mg/kg dwt	Assessment Factors
	-	Fresh water sediment	4.61 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	0.461 mg/kg dwt	Equilibrium Partitioning
	-	Soil	0.846 mg/kg dwt	Equilibrium Partitioning

8.2 Exposure controls

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.

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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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

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SECTION 8: Exposure controls/personal protection

- 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.
 - 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.
 - 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Solid. [Needles.]
- Colour** : White.
- Odour** : Alcohol-like.
- Odour threshold** : Not available.
- pH** : 9.5 to 10.5 [Conc. (% w/w): 1%]
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: >100°C (>212°F) [Pensky-Martens.]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Burning time** : Not available.
- Burning rate** : Not available.
- Upper/lower flammability or explosive limits** : Not available.
- Vapour pressure** : Not available.
- Vapour density** : Not available.
- Relative density** : 0.5
- Density** : 0.5 g/cm³
- Solubility(ies)** : Easily soluble in the following materials: hot water.
Soluble in the following materials: cold water.
- Partition coefficient: n-octanol/ water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.
- Explosive properties** : Not available.
- Oxidising properties** : Not available.

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SECTION 9: Physical and chemical properties

9.2 Other information

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Species	Result	Dose
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	OECD 402 Acute Dermal Toxicity	Rabbit - Male, Female	LD50 Dermal	>2000 mg/kg - (read across from similar material)
	OECD 402 Acute Dermal Toxicity	Rat - Male, Female	LD50 Dermal	>2000 mg/kg - (read across from similar material)
	OECD 401 Acute Oral Toxicity	Rat - Female	LD50 Oral	1063 mg/kg - (read across from similar material)

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	OECD 404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Erythema/ Eschar 2.2
	OECD 404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Oedema 1.7
	OECD 405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Cornea opacity 2.3
	OECD 405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Iris lesion 1
	OECD 405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Redness of the conjunctivae 2.3
	OECD 405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Oedema of the conjunctivae 2.9

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SECTION 11: Toxicological information

Sensitisation

Product/ingredient name	Test	Species	Result
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	-	Guinea pig	Not sensitizing -

Potential chronic health effects

Product/ingredient name	Test	Species	Result	Dose
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	OECD 408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat - Male, Female	NOAEL	488 mg/kg (read across from similar material)

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: with and without	Negative
	OECD 476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal Metabolic activation: with and without	Negative

Teratogenicity

Product/ingredient name	Test	Species	Result	Dose
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	OECD 414 Prenatal Developmental Toxicity Study	Rat	-	250 mg/kg

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : 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.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

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SECTION 11: Toxicological information

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.

General : No known significant effects or critical hazards.

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.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Test	Species	Exposure	Result
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	EU C.3 (Algal Inhibition test)	Algae - Desmodesmus subspicatus	72 hours	Acute EC50 >20 mg/l (growth rate) Fresh water
	-	Crustaceans - Water flea - Ceriodaphnia dubia - Neonate	48 hours	Acute EC50 1.37 mg/l Fresh water
	-	Daphnia	48 hours	Acute EC50 2.8 mg/l Fresh water
	OECD 203 Fish, Acute Toxicity Test	Fish - Oncorhynchus mykiss	96 hours	Acute LC50 3.6 mg/l Fresh water
	EU C.3 (Algal Inhibition test)	Algae - Desmodesmus subspicatus	72 hours	Acute NOEC 0.6 mg/l (growth rate) Fresh water
OECD 210 Fish, Early-Life Stage Toxicity Test	Fish - Pimephales promelas	34 days	Chronic NOEC 0.11 mg/l Fresh water	

12.2 Persistence and degradability

Product/ingredient name	Test	Result
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	OECD 301D Ready Biodegradability - Closed Bottle Test	90 to 100 % - Readily - 28 days

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SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Sulfuric acid, mono-c12-14-alkyl esters, sodium salts [Sulfuric acid, mono-C10-16-alkyl esters, sodium salts]	-	-	Readily

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : No.

vPvB : Not available.

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

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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 spill material and runoff and contact with soil, waterways, drains and sewers.

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SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	9006	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	-	-
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	Yes.	No.	No.
Additional information	-	The product is only regulated as a dangerous good when transported in tank vessels.	-	
14.6 Special precautions for user				
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code				

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Black List Chemicals : Not listed

Priority List Chemicals : Not determined

Industrial emissions : Not listed

(integrated pollution prevention and control) - Air

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SECTION 15: Regulatory information

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

International lists

Australia inventory (AICS) : All components are listed or exempted.

Canada inventory : All components are listed or exempted.

China inventory (IECSC) : All components are listed or exempted.

EU Inventory (EINECS/ELINCS/NLP) : All components are listed or exempted.

Japan inventory (ENCS) : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.

Korea inventory (KECI) : All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC) : All components are listed or exempted.

Philippines inventory (PICCS) : All components are listed or exempted.

Taiwan inventory (TCSI) : All components are listed or exempted.

United States inventory (TSCA 8b) : All components are listed or exempted.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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SECTION 16: Other information

Classification	Justification
Acute Tox. 4, H302	Calculation method
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements	: H302 Harmful if swallowed. H315 Causes skin irritation. H318 Causes serious eye damage. H412 Harmful to aquatic life with long lasting effects.
Full text of classifications [CLP/GHS]	: Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4 Aquatic Chronic 3, H412 LONG-TERM AQUATIC HAZARD - Category 3 Eye Dam. 1, H318 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2
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Emergency contact numbers for local language support in Asia Pacific region

Country information	Languages supported	Telephone no.:	Location
Australia	English	+61 2 8014 4558	Australia
Bangladesh	Bengali, English	+65 3158 1200	Singapore
China	Mandarin, English	+86 10 5100 3039	Beijing China
India	Hindi, English	+65 3158 1198	Singapore
India (local toll free number)	Hindi, English	000800 100 7479	India
Indonesia (local toll free number)	Bahasa Indonesian, English	00780 3011 0293	Indonesia
Japan	Japanese, English	+81 3 4578 9341	Japan
Korea	Korean, English	+65 3158 1285	Singapore
Malaysia	Bahasa Malaysian, English	+60 3 6207 4347	Malaysia
New Zealand	English	+64 9929 1483	New Zealand
Pakistan	Urdu, English	+65 3158 1329	Singapore
Philippines	Tagalog, English	+65 3158 1203	Singapore
Sri Lanka	Sinhalese, English	+65 3158 1195	Singapore
Thailand (local toll free number)	Thai, English	001800 1 2066 6751	Thailand
Vietnam	Vietnamese, English	+65 3158 1255	Singapore

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