



Safety Data Sheet

SUMA J-512

Revision: 2023-01-31

Version: 01.0

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

1.1 Product identifier

Trade Name: SUMA J-512

1.2 Recommended use and restrictions on use

See product label.
For professional use only.

1.3 Details of the supplier of the safety data sheet

Diversey Philippines Inc

Contact details

6756 Ayala Avenue
8 Floor Bankmer Building
Makati City 1226 Philippines
Tel. +63 2 8271 2400

1.4 Emergency telephone number

In case of medical emergency, please seek professional medical advice.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Corr. 1B (H314)
Eye Dam. 1 (H318)
Aquatic Chronic 3 (H412)

2.2 Label elements



Signal word: Danger.

Hazard statements:

H314 - Causes severe skin burns and eye damage.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements:

P280 - Wear protective gloves, protective clothing and eye or face protection.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor/physician.

2.3 Other hazards

No other hazards known. Exposure and appropriate engineering controls are specified in subsection 8.2 exposure controls.

2.4 Classification diluted product:

Maximum recommended use concentration (% w/w): 0.63

Not classified as hazardous

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

Ingredient(s)	CAS #	Classification	Weight %
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	68956-79-6	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411) Eye Dam. 1 (H318)	3-10
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	68391-01-5	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411) Eye Dam. 1 (H318)	3-10

[4] Polymer.

Workplace exposure limit(s), if available, are listed in subsection 8.1.

For the full text of the H phrases mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General Information:

If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Inhalation:

Get medical attention or advice if you feel unwell.

Skin contact:

Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTER or doctor/physician.

Eye contact:

Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTER or doctor/physician.

Self-protection of first aider:

Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:

No known effects or symptoms in normal use.

Skin contact:

Causes severe burns.

Eye contact:

Causes severe or permanent damage.

Ingestion:

Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

4.3 Indication of immediate medical attention and notes for physician.

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Dilute with plenty of water. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up

Dike to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Measures to prevent fire and explosions:

No special precautions required.

Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Use only with adequate ventilation. See section 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Store in a closed container. Keep only in original container. Keep from freezing. For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits

Air limit values, if available:

Biological limit values, if available:

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet. If available, please refer to the product information sheet for application and handling instructions. Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls:

If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.

Appropriate organisational controls:

Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection:

Safety glasses or goggles (EN 166). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

Hand protection:

Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm

Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

Body protection:

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).

Respiratory protection:

No special requirements under normal use conditions.

Environmental exposure controls:

Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

Maximum recommended use concentration (% w/w): 0.63

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Appropriate engineering controls: No special requirements under normal use conditions.
Appropriate organisational controls: No special requirements under normal use conditions.

Personal protective equipment

Eye / face protection: No special requirements under normal use conditions.
Hand protection: No special requirements under normal use conditions.
Body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

	Method / remark
Physical State: Liquid	
Color: Clear , Red	
Odor: Product specific	
Odor threshold: Not applicable	
pH: ≈ 7 (neat)	ISO 4316
Dilution pH: ≈ 7 (0.63 %)	ISO 4316
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	
Flammability (liquid): Not flammable.	
Flash point (°C): > 93 °C	closed cup
Sustained combustion: Not applicable (UN Manual of Tests and Criteria, section 32, L.2)	
Evaporation Rate: Not determined	Not relevant to classification of this product
Flammability (solid, gas): Not applicable to liquids	
Lower and upper explosion limit/flammability limit (%): Not determined	
Vapor pressure: Not determined	
Relative vapor density: Not determined	Not relevant to classification of this product
Relative density: ≈ 1.00 (20 °C)	OECD 109 (EU A.3)
Solubility in / Miscibility with water: Completely miscible Fully miscible	
Partition coefficient: n-octanol/water No information available.	
Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3	
Autoignition temperature: Not determined	
Decomposition temperature: Not applicable	
Viscosity: ≈ 10 mPa.s (20 °C)	Refer Test Method Notes
Explosive properties: Not explosive.	
Oxidising properties: Not oxidising.	

9.2 Other information

Surface tension (N/m): Not determined
Corrosion to metals: Not corrosive to metals

SECTION 10: Stability and reactivity**10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid

None known under normal storage and use conditions.

10.5 Incompatible materials

None known under normal use conditions.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture data:.

Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

ATE - Dermal (mg/kg): >2000

Substance data, where relevant and available, are listed below:.

Acute toxicity

Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		304.5			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	LD ₅₀	304.5	Rat	Method not given	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	LD ₅₀	930	Rat	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	LC ₅₀	0.054		Method not given	

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	No data available			

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	No data available			

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available			

n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	No data available			
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CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**Mutagenicity**

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available		No data available	
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	No evidence for genotoxicity, weight of evidence	Weight of evidence	No evidence for mutagenicity	Weight of evidence

Carcinogenicity

Ingredient(s)	Effect
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	No evidence for carcinogenicity, weight-of-evidence

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride			No data available				
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride			No data available				

Repeated dose toxicity**Sub-acute or sub-chronic oral toxicity**

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available				
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride		No data available				

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available				
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available				
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride			No data available					
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	Not applicable

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
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n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	Not applicable

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3.

Potential adverse health effects and symptoms

Effects and symptoms related to the product, if any, are listed in subsection 4.2.

SECTION 12: Ecological information**12.1 Toxicity**

No data is available on the mixture.

Substance data, where relevant and available, are listed below:

Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride		No data available			

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available				
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		No data available				

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n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride		No data available				
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Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Terrestrial toxicity

Terrestrial toxicity - earthworms, if available:

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

12.2 Persistence and degradability**Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride					Not readily biodegradable
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride				Method not given	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log K_{ow})

Ingredient(s)	Value	Method	Evaluation	Remark
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available			
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	3.91	Method not given		

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available				
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	182.8		Method not given		

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K _{oc}	Desorption coefficient Log K _{oc} (des)	Method	Soil/sediment type	Evaluation
n-Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride	No data available				
n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride	No data available				

12.5 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

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13.1 Waste treatment methods

Waste from residues / unused products (undiluted product): The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

Empty packaging**Recommendation:**

Dispose of observing national or local regulations.

Suitable cleaning agents:

Water, if necessary with cleaning agent.

SECTION 14: Transport information**Land transport, Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)**

14.1 UN number: 1760

14.2 UN proper shipping name:

Corrosive liquid, n.o.s. (alkyl dimethylbenzylammoniumchloride)

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 8

14.4 Packing group: III

14.5 Environmental hazards:

Environmentally hazardous: No

Marine pollutant: No

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:**IMO/IMDG**

EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of national road transport regulations and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations**

- DOLE Department Order No. 136-14 Guidelines for the Implementation of Globally Harmonized System (GHS) in Chemical Safety Program in the Workplace

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

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Version: 01.0

Revision: 2023-01-31

Full text of the H phrases mentioned in section 3:

- H225 - Highly flammable liquid and vapor.
- H302 - Harmful if swallowed.
- H312 - Harmful in contact with skin.
- H314 - Causes severe skin burns and eye damage.
- H400 - Very toxic to aquatic life.
- H411 - Toxic to aquatic life with long lasting effects.
- H318 - Causes serious eye damage.

Abbreviations and acronyms:

- DNEL - Derived No Effect Level
- PNEC - Predicted No Effect Concentration
- ATE - Acute Toxicity Estimate
- LD50 - Lethal Dose, 50% / Median Lethal dose
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- EC50 - effective concentration, 50%
- NOEL - No observed effect level
- NOAEL - No observed adverse effect level
- STOT-RE - Specific target organ toxicity (repeated exposure)
- STOT-SE - Specific target organ toxicity (single exposure)
- OECD - Organization for Economic Cooperation and Development

End of Safety Data Sheet