

Propionic Acid

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1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product Name: Propionic Acid
Substance Name: Propionic Acid

CAS No: 79-09-4 **EC No:** 201-176-3

REACH registration number: 01-2119486971-24-XXXX

Pure substance/mixture: Substance

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

Industrial: Manufacture of substances. Transfer of substance or preparation (charging/discharging).

Formulation of preparations (mixtures). Use in laboratories. Use in chemical processes.

Use as an intermediate.

Professional: Transfer of substance or preparation (charging/discharging). Use in laboratories. Use in

animal nutrition. Use as a co-formulant in plant protection products.

Consumer: Use in animal nutrition.

Recommended Use: Chemical intermediate, Feed additive 1k280; Preservatives, Silage additives.

Uses advised against: Not identified.

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2. HAZARDS IDENTIFICATION

Hazards description

Inhalation: Inhalation of vapours may cause smarting pain in nose and throat, cough and hoarseness.

Inhalation of high concentrations may also cause pulmonary oedema that may occur after several hours. Prolonged and repeated contact with vapours may cause inflammation in nose

and throat, chronic bronchitis and dental corrosion.

Skin contact: Skin contact may cause severe burns with redness, smarting pain and wounds. Prolonged and

repeated contact with vapours may cause calluses.

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Eye contact: Splashes causes intensive pain and corneal burns. Risk of permanent eye damage. Vapours

may be substantially irritating.

Ingestion: Ingestion may cause severe burns with burning pain, vomiting and eventually shock and kidney

damage. Risk of permanent damage due to scarring of the oesophagus and stomach.

Classification of the substance or mixture:

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

Skin corrosion/irritation Category 1 Sub-category B - (H314)

Serious eye damage/eye irritation Category 1 - (H318)

Specific target organ toxicity - single exposure Category 3 - (H335)

Flammable liquids Category 3 - (H226)

Label elements:

Symbols/Pictograms:







Signal word: Danger

Hazard statements: H226 - Flammable liquid and vapour.

H314 - Causes severe skin burns and eye damage.

H335 - May cause respiratory irritation.

Precautionary Statements: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P260 - Do not breathe vapour.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or shower.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

Other hazards: The substance is a flammable liquid and may form explosive air/vapour mixtures.

This substance does not meet the criteria for classification as PBT or $\mbox{\sc vPvB}.$

This product does not contain any known or suspected endocrine disruptors.

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Chemical name: Propionic acid. CAS: 79-09-4

EC No.: 201-176-3

REACH registration No.: 01-2119486971-24-XXXX

Weight %: > 99.5

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

Flam. Liq. 3 (H226) Skin Corr. 1B (H314) Eye Dam. 1 (H318) STOT SE 3 (H335)

Specific concentration limit (SCL): Eye Irrit. 2: 10%<=C<25%

Skin Corr. 1B: C>=25% Skin Irrit. 2: 10%<=C<25% STOT SE 3: C>=10%

M-Factor: No data available.
M-Factor (long-term): No data available.

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes:

[A] - Not classified, Data are conclusive but insufficient for classification.

Full text of H- and EUH-phrases: see section 16.

Acute Toxicity Estimate: If LD50/LC50 data is not available or does not correspond to the classification category, then

the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute

toxicity estimate (ATE mix) for classifying a mixture based on its components.

Chemical name: Propionic acid. CAS: 79-09-4

 Oral LD50 mg/kg:
 3455

 Dermal LD50 mg/kg:
 3235

Inhalation LC50 - 4 hour - dust/mist - mg/L: - Inhalation LC50 - 4 hour - vapour - mg/L: 24.4

Inhalation LC50 - 4 hour - gas - ppm: Not applicable.

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

4. FIRST AID MEASURES

Description of first aid measures:

General advice: Begin first-aid measures immediately! Causes severe skin burns and eye damage. If

unconscious place in recovery position and seek medical advice. First aider: Pay attention to

self-protection. Emergency shower and eye wash facilities must exist in the workplace.

Inhalation: Remove to fresh air. Call a doctor or poison control centre immediately. If experiencing

respiratory symptoms: Artificial respiration and/or oxygen may be necessary.

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Skin contact: Wash off immediately with plenty of water for at least 15 minutes. Use lukewarm water if

possible. Take off contaminated clothing. Seek immediate medical attention/advice.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Do not rub affected area. Use lukewarm water if possible. Seek

immediate medical attention/advice.

Ingestion: Do NOT induce vomiting. Clean mouth with water and drink plenty of water afterwards.

Remove from exposure, lie down. Seek immediate medical attention/advice.

Self-protection of the first aider: Avoid contact with skin, eyes or clothing. Remove all sources of ignition.

Most important symptoms and effects, both acute and delayed:

Symptoms:

Inhalation: Inhalation of vapours may cause smarting pain in nose and throat, cough and hoarseness.

Inhalation of high concentrations may also cause pulmonary oedema that may occur after several hours. Prolonged and repeated contact with vapours may cause inflammation in nose

and throat, chronic bronchitis and dental corrosion.

Skin contact: Skin contact may cause severe burns with redness, smarting pain and wounds.

Eye contact: Splashes causes intensive pain and corneal burns. Risk of permanent eye damage. Vapours

may be substantially irritating.

Ingestion: Ingestion may cause severe burns with burning pain, vomiting and eventually shock and kidney

damage. Risk of permanent damage due to scarring of the oesophagus and stomach.

Indication of any immediate medical attention and special treatment needed:

Note to doctors: Product is a corrosive material. Use of gastric lavage or emesis is contra-indicated.

Possible perforation of stomach or oesophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal oedema may occur. Marked decrease in blood pressure may

occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable Extinguishing Media: Carbon dioxide (CO2). Extinguishing powder. Water spray (fog). Alcohol resistant foam.

Small Fire: Carbon dioxide (CO2). Extinguishing powder.

Large Fire: Alcohol resistant foam. Water spray or fog.

Unsuitable extinguishing media: High volume water jet.

Special hazards arising from the substance or mixture:

In the event of fire and/or explosion do not breathe fumes. Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). The product causes burns of eyes, skin and mucous membranes. Vapours may form explosive

mixtures with air. Keep product and empty container away from heat and sources of

ignition. Thermal decomposition can lead to release of irritating and toxic gases and vapours.

Hazardous combustion products: Carbon dioxide (CO2). Carbon monoxide (CO).

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Advice for firefighters:

Special protective equipment and precautions for fire-fighters:

Keep away from sources of ignition. Prevent firefighting water from entering surface water or groundwater. Cool containers with spray water from a safe distance. Never use welding or cutting torch on or near container (even empty) because product may ignite explosively.

Additional information: Cool containers with flooding quantities of water until well after fire is out. Prevent fire

extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Do not touch

damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition. Ensure adequate ventilation, especially in confined areas. Prevent

further leakage or spillage if safe to do so.

Environmental precautions: Do not allow into any sewer, on the ground or into any body of water. Should not be released

into the environment. Local authorities should be advised if significant spillages cannot be contained. Dilute with plenty of water. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up:

Methods for containment:

Small spill: Dilute with water and wipe up or absorb with inert material.

Large spill: Dyke to collect large liquid spills. Pump up the product into a spare container suitably labelled.

Methods for cleaning up: Flush area with flooding quantities of water.

Reference to other sections: See Section 7,8,13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling:

Advice on safe handling: Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame

and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Avoid contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. For details, see the separate exposure

scenario(s).

General hygiene considerations: When using do not eat, drink or smoke. Take off all contaminated clothing and wash it before

re-use.

Conditions for safe storage, including any incompatibilities:

Storage Conditions: Keep tightly closed in a dry and cool place. Keep in properly labelled containers. Keep away

from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static

electricity). [cont...]

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Specific end use(s):

Risk Management Methods (RMM): For details, see the separate exposure scenario(s).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Exposure Limits:

Keep personal exposure levels below Derived No Effect Level (DNEL) and national exposure limit values (if existing).

| Chemical name | European Union | United Kingdom |
|----------------|----------------|----------------|
| Propionic acid | TWA 10 ppm | TWA: 10 ppm |
| 79-09-4 | TWA 31 mg/m3 | TWA: 31 mg/m3 |
| | STEL 20 ppm | STEL: 15 ppm |
| | STEL 62 mg/m3 | STEL: 46 mg/m3 |

Derived No Effect Level (DNEL) - worker:

Propionic acid (79-09-4)

| Туре | Exposure route | DNEL | Remarks |
|---------------------------|----------------|------|------------|
| Acute effects, local | Inhalation | 62 | mg/m3 |
| Chronic effects, local | Inhalation | 31 | mg/m3 |
| Chronic effects, systemic | Inhalation | 73 | mg/m3 |
| Chronic effects, systemic | Dermal | 20.9 | mg/kg bw/d |

Propionic acid (79-09-4)

| Туре | Exposure route | DNEL | Remarks |
|---------------------------|----------------|------|------------|
| Chronic effects, systemic | Oral | 10.5 | mg/kg bw/d |
| Chronic effects, systemic | Inhalation | 18.3 | mg/m3 |
| Acute effects, local | Inhalation | 30.8 | mg/m3 |
| Chronic effects, local | Inhalation | 3.7 | mg/m3 |
| Chronic effects, systemic | Dermal | 10.5 | mg/kg bw/d |

Predicted No Effect Concentration (PNEC):

Propionic acid (79-09-4)

| Environmental compartment | Predicted No Effect Concentration (PNEC) | Remarks |
|----------------------------|--|----------------------|
| Freshwater | 0.5 | mg/l |
| Impact on Sewage Treatment | 5 | mg/l |
| Marine water | 0.05 | mg/l |
| Freshwater sediment | 1.86 | mg/kg dry weight |
| Marine sediment | 0.186 | mg/kg dry weight |
| Soil | 0.1258 | mg/kg dry weight |
| Air | - | No hazard identified |

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Exposure controls:

Appropriate engineering controls: Emergency shower and eye wash facilities must exist in the workplace. Ensure adequate

ventilation, especially in confined areas. Comply with 2014/34/EU concerning equipment and protective systems intended for use in potentially explosive atmospheres and Directive 1999/92/EC regarding minimum requirements for improving the safety and health protection of

workers potentially at risk from explosive atmospheres.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Tight sealing safety goggles. Face protection shield.

Hand protection: Wear suitable gloves.

Gloves:

| Duration of contact | Material | Glove thickness | Break through time | Remarks |
|---|------------------------|-----------------|--------------------|---------|
| Suitable materials also with prolonged, | Butyl rubber | =>0.7 mm | >480 min | |
| direct contact (protective index 6, | | | | |
| corresponding > 480 minutes of | | | | |
| permeation time according to EN 374): | | | | |
| | | | | |
| Suitable materials short-term contact | Nitrile rubber, NBR | =>0.4 mm | >30 min | |
| and/or splashes (protective index 2, | | | | |
| corresponding > 30 minutes of | | | | |
| permeation time according to EN 374): | | | | |
| | | | | |
| Suitable materials short-term | Chloroprene rubber, CR | =>0.5 mm | >30 min | |
| contact and/or splashes (protective | | | | |
| index 2, corresponding > 30 minutes | | | | |

Skin and body protection: Body protection must be chosen depending on activity and possible exposure, e.g., apron,

protecting boots, chemical-protection suit (according to EN 14605 in case of splashes).

Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term exposure: Gas filter for gases/vapours of organic

compounds (boiling point >65°C, e. g. Type A).

Suitable respiratory protection for higher concentrations or long-term exposure: Self-contained breathing apparatus.

Environmental exposure controls:

of permeation time according to EN 374):

Further information concerning special risk management measures: See annex of this safety data sheet (exposure scenarios).

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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state:LiquidColour:ColourlessOdour:Pungent

Odour threshold: 0.026-0.17 ppm

Property Values Remarks/Method

Melting point/freezing point: $< -20 \,^{\circ}\text{C} / -4 \,^{\circ}\text{F}$

Boiling point / boiling range: 141 °C / 286 °F OECD Test No. 103: Boiling Point

Flammability (solid, gas): Not applicable.

Explosive limits: Upper explosive limits 12%

Lower explosive limits 2%

Flash point: $51 \,^{\circ}\text{C} / 124 \,^{\circ}\text{F}$ ASTM D 7094-04 Autoignition temperature: $425 \,^{\circ}\text{C} / 797 \,^{\circ}\text{F}$ ASTM E 659-78

Decomposition temperature: Not applicable.

pH: 2.5 @20°C (100 g/l)

Kinematic viscosity: No information available.

Dynamic viscosity: 1.2 mPa s @20°C; ISO 3219

Explosive properties: The product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Oxidising properties: Not oxidising.

Water solubility: Miscible in water.

Solubility(ies): No information available.

Partition coefficient: 0.3 log POW (@20°C; OECD 107) Partition Coefficient

(n-octanol/water)

Vapour pressure: 0.4 kPa @20°C; lit.

Vapour density:No information available.Relative density:No information available.

Density: 994 kg/m³ @ 20 °C

Bulk density: No information available.

Particle characteristics: No information available.

Information with regards to physical hazard classes:

Explosives: Not applicable.

Flammable gases: Not applicable.

Aerosols: Not applicable.

Oxidising gases: Not applicable.

Gases under pressure: Not applicable.

Flammable solids: Burning Rate: Not applicable.

Self-reactive substances and mixtures: Not applicable.

Pyrophoric liquids: Not applicable.

Pyrophoric solids: Not applicable.

Self-heating substances and mixtures Not applicable.

Oxidising liquids: Not applicable.

Oxidising liquids.

Oxidising solids: Not applicable. [cont...]

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Oxidising properties:

Organic peroxides: Not applicable.

Desensitised explosives: Not applicable.

Other safety characteristics: No information available.

10. STABILITY AND REACTIVITY

Reactivity: The substance may act as a source for a formyl group or a hydride ion. Due to its acidity, its

solutions in alcohols form esters spontaneously. Propionate salts are formed by reaction with

hydroxides of alkali metals.

Chemical stability:

Stability: Stable under normal conditions.

Possibility of hazardous reactions Vapours may form explosive mixture with air. Reacts with. alkalis. Oxidising substances.

Corrosive substances in contact with metals may produce flammable hydrogen gas.

Conditions to avoid: No information available.

Incompatible materials: Alkali. Oxidising substances.

Hazardous decomposition products: Hydrogen, Flammable gases, In case of fire: Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Information on likely routes of exposure: Inhalation. Dermal.

Symptoms related to the physical, chemical and toxicological characteristics:

Most important symptoms and effects, both acute and delayed:

Inhalation: Inhalation of vapours may cause smarting pain in nose and throat, cough and hoarseness.

Inhalation of high concentrations may also cause pulmonary oedema that may occur after several hours. Prolonged and repeated contact with vapours may cause inflammation in nose

and throat, chronic bronchitis and dental corrosion.

Skin contact: Skin contact may cause severe burns with redness, smarting pain and wounds.

Eye contact: Splashes causes intensive pain and corneal burns. Risk of permanent eye damage. Vapours

may be substantially irritating.

Ingestion: Ingestion may cause severe burns with burning pain, vomiting and eventually shock and kidney

damage. Risk of permanent damage due to scarring of the oesophagus and stomach.

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Numerical measures of toxicity:

Acute toxicity: May be harmful if swallowed. May be harmful in contact with skin.

Propionic acid (79-09-4)

| Method | Species | Exposure route | Effective dose | Remarks |
|--|---------|--------------------|----------------|--------------------------|
| OECD Test No. 401: Acute Oral Toxicity | Rat | Oral | 3455 | LD50 (lethal dose) mg/kg |
| OECD Test No. 402: Acute Dermal Toxicity | Rat | Dermal | 3235 | LD50 (lethal dose) mg/kg |
| OECD Test No. 403: Acute Inhalation Toxicity | Rat | Inhalation, Vapour | >19.7 | LC0 /1h, mg/l |
| OECD Test No. 403: Acute Inhalation Toxicity | Rat | Inhalation, Vapour | 24.4 | LC0 /8h, mg/l |

Skin corrosion/irritation: Causes burns.

Propionic acid (79-09-4)

Method Species Exposure route Results

Other Guidelines Rabbit Dermal Corrosive Category 1B

Serious eye damage/eye irritation: Causes burns.

Propionic acid (79-09-4)

MethodSpeciesExposure routeResultsOther GuidelinesRabbitEyeCorrosive

Respiratory or skin sensitisation: Not a skin sensitiser.

Propionic acid (79-09-4)

Method Species Exposure route Results

OECD Test No. 406: Skin Sensitisation Guinea pig Skin Not a skin sensitiser

Germ cell mutagenicity: Not mutagenic.

Propionic acid (79-09-4)

| Method | Species | Results |
|---|----------|---------------------------|
| OECD Test No. 471: Bacterial Reverse Mutation Test | In vitro | Negative |
| OECD Test No. 476: In vitro Mammalian Cell Gene Mutation Test | In vitro | Negative read-across from |
| | | supporting substance |
| | | (structural analogue) |
| OECD Test No. 479: Genetic Toxicology: In vitro Sister | In vitro | Negative |
| Chromatid Exchange Assay in Mammalian Cells | | |
| OECD Test No. 474: Mammalian Erythrocyte Micronucleus Test | In vivo | Negative |

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Carcinogenicity: Animal studies have not shown any carcinogenic potential. There is no indication for any

carcinogenic potential since all in vitro and in vivo mutagenicity studies are negative.

Propionic acid (79-09-4)

Method Species Exposure route Effective dose Remarks

Unknown Rat Oral 4000 NOAEL ppm Animal studies

have not shown any carcinogenic potential.

Reproductive toxicity: No embryotoxic or teratogenic effects have been observed.

Propionic acid (79-09-4)

Development Toxicity Study

Method Species Exposure route Effective dose Remarks

OECD Test No. 414: Pre-natal Rat Oral 300 NOAEL mg/kg bw/d read-across

from supporting substance (structural analogue)

STOT - single exposure: Irritating to respiratory system

Propionic acid (79-09-4)

Method Species Exposure route Effective dose Remarks

Inhalation Irritating to respiratory system

STOT - repeated exposure: The available data indicate that the product is of low toxicity and is not classified for repeated

dose effects.

Propionic acid (79-09-4)

| Method | Species | Exposure route | Effective dose | Remarks |
|---|---------|----------------|----------------|-------------------------|
| OECD Test No. 408: Repeated Dose 90-Day | Rat | Oral | 6200 | NOAEL Chronic effects, |
| Oral Toxicity Study in Rodents | | | | local ppm |
| OECD Test No. 408: Repeated Dose 90-Day | Rat | Oral | 50000 | NOAEL systemic toxicity |
| Oral Toxicity Study in Rodents | | | | ppm |
| OECD Test No. 411: Sub-chronic Dermal | Mouse | Dermal | 136.9 | LOAEL Subchronic |
| Toxicity: 90-day Study | | | | toxicity mg/kg bw/d |
| OECD Test No. 409: Repeated Dose 90-Day | Dog | Oral | 733.4 | NOAEL mg/kg bw/d |
| Oral Toxicity Study in Non-Rodents | | | | |

Endocrine disrupting properties: This product does not contain any known or suspected endocrine disruptors.

No hazard identified.

Other information:

Aspiration hazard:

Information on other hazards:

Other adverse effects: No information available.

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12. ECOLOGICAL INFORMATION

Toxicity: Low toxicity to aquatic organisms.

Propionic acid (79-09-4)

| Method | Species | Exposure route | Effective dose | Exposure time | Remarks |
|-----------------------|----------------|----------------|----------------|---------------|---------------------|
| DIN 38412 | Leuciscus idus | Freshwater | >10000 | 96h | LC50 (lethal |
| | | | | | concentration) mg/l |
| Regulation (EC) No. | Daphnia magna | Freshwater | >500 | 48h | EC50 (effective |
| 440/2008, Annex, C.2 | | | | | concentration) mg/l |
| OECD Test No. 201: | Scenedesmus | Freshwater | >500 | 72h | EC50 (effective |
| Freshwater Algae and | subspicatus | | | | concentration) mg/l |
| Cyanobacteria, Growth | | | | | |
| Inhibition Test | | | | | |
| DIN 38412 | Leuciscus idus | Freshwater | >5000 | 96h | NOEC mg/l |
| Regulation (EC) No. | Daphnia magna | Freshwater | 250 | 48h | NOEC mg/l |
| 440/2008, Annex, C.2 | | | | | |

Persistence and degradability: Readily biodegradable.

Propionic acid (79-09-4)

| Method | Value | Exposure time | Results |
|--|-------|---------------|-----------------------|
| Regulation (EC) No. 440/2008, Annex, C.5 (BOD) | 93% | 20d | Readily biodegradable |
| OECD Test No. 302B: Inherent Biodegradability: | 95% | 10d | Readily biodegradable |
| Zahn-Wellens/ EVPA Test | | | |
| Unknown | 74% | 30d | Readily biodegradable |

Bioaccumulative potential: No bioaccumulation potential.

Chemical name Partition coefficient Bioconcentration factor (BCF):

Propionic acid 0.33

Mobility in soil: The substance is not expected to adsorb to a high degree to suspended solids and sediment

based upon the log Pow.

Results of PBT and vPvB assessment: This substance does not meet the criteria for classification as PBT or vPvB.

Endocrine disrupting properties: This product does not contain any known or suspected endocrine disruptors.

Other adverse effects: Emissions to water lowers the pH. This may cause local damage to fish and aquatic organisms

in the discharge area.

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13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Waste from residues/unused products: The product is classified as hazardous waste and must be disposed of as such.

Incinerate at a licensed installation.

Contaminated packaging: Thoroughly emptied and clean packaging may be recycled.

Waste codes / waste designations according to EWC / AVV: Waste from residues/unused products. 16 03 05*.

Other Information: Waste codes should be assigned by the user based on the application for which the

product was used.

14. TRANSPORT INFORMATION





ADR Road transport:

UN number or ID number: UN3463

UN proper shipping name: Propionic acid

Proper Shipping Description: UN3463, Propionic acid, 8 (3), II, (D/E)

Transport hazard class(es): 8
Subsidiary class: 3
Packing Group: ||

Environmental hazard: Not applicable

Special precautions for user: None
Tunnel restriction code: (D/E)
Limited quantity (LQ): 1 L
ADR Hazard Id (Kemmler Number): 83

RID Rail transport:

UN number: UN3463

UN proper shipping name: Propionic acid

Proper Shipping Description: UN3463, Propionic acid, 8 (3), II

Transport hazard class(es): 8
Subsidiary hazard class: 3
Packing Group: II

Environmental hazard: Not applicable

Special precautions for user: None

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IMDG Sea transport:

UN number or ID number: UN3463

UN proper shipping name: Propionic acid

Proper Shipping Description: UN3463, Propionic acid, 8 (3), II, (51°C c.c.)

Transport hazard class(es): 8
Subsidiary hazard class: 3
Packing Group: ||

Marine pollutant: Not applicable

Special precautions for user: None

EmS-No: F-E, S-C

Limited quantity (LQ): 1 L

Transport in bulk according to Annex II of MARPOL and the IBC Code: Y, S/P, 3,2G

IATA Air transport:

UN number or ID number: UN3463

UN proper shipping name: Propionic acid

Transport hazard class(es): 8
Subsidiary hazard class: 3
Packing group: ||

Proper Shipping Description: UN3463, Propionic acid, 8 (3), II

Environmental hazard: Not applicable

Special precautions for user: None
Limited quantity (LQ): 0.5 L
ERG Code: 8F

15. REGULATORY INFORMATION

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

International Regulations: Not applicable.

European Union: This product contains one or more substance(s) subject to restriction (Regulation (EC) No.

1907/2006 (REACH), Annex XVII), Number: 03.

https://echa.europa.eu/substances-restricted-under-reach

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the

risks related to chemical agent at work.

Take note of Directive 94/33/EC on the protection of young people at work.

Take note of feed additive regulation (EC) 1831/2003.

Comply with 2014/34/EU concerning equipment and protective systems intended for use in potentially explosive atmospheres and Directive 1999/92/EC regarding minimum requirements

for improving the safety and health protection of workers potentially at risk from explosive

atmospheres.

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National regulations:

France: Occupational Illnesses (R-463-3, France) Not applicable

Germany: Water hazard class (WGK) slightly hazardous to water (WGK 1)

Denmark: MAL Code Number 5-4

Chemical safety assessment: A Chemical Safety Assessment has been carried out for this substance.

Note: The regulatory information given above only indicates the principal regulations specifically

Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all

applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet:

Full text of H-Statements referred to under section 3:

H226 - Flammable liquid and vapour.

H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage.H335 - May cause respiratory irritation.

Legend: REACH: Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH)

Regulation (EC 1907/2006).

CLP: The Classification, Labelling and Packaging of Substances and Mixtures (CLP)

Regulation (EC 1272/2008).

SVHC: Substances of Very High Concern for Authorisation.

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals.

vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals.

ED: Endocrine disrupting potential.

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not

replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety

requirements. It should not therefore be construed as guaranteeing specific properties.

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