

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

PROPIONIC ACID 99,5% FE / IBC 1000 KG

Version 3.0

Print Date 29.08.2012

Revision Date 31.07.2012

1. Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Trade name : PROPIONIC ACID 99,5% FE / IBC 1000 KG
Substance name : propionic acid
Index-No. : 607-089-00-0
CAS-No. : 79-09-4
EC-No. : 201-176-3
Registration number : 01-2119486971-24-xxxx

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

Use of the Substance/Mixture : Chemical synthesis., industrial use

Uses advised against : At this moment we have not identified any uses advised against

1.3. Details of the supplier of the safety data sheet

Company : Brenntag Nordic A/S
Borupvang 5 B
DK 2750 Ballerup
Telephone : +45 43 29 28 00
Telefax : +45 43 29 27 00
E-mail address : SDS.DK@brenntag-nordic.com
Responsible/issuing person : Environment & Quality

1.4. Emergency telephone number

Emergency telephone number : In case of personal injury call:
Denmark: 82 12 12 12 Giftlinien, Bispebjerg Hospital
Finland: Poison Information Centre: (09) 471 977 (direct) or (09) 47 11 (exchange), open 24h/day
Norway: 22 59 13 00 Giftinformasjonen (døgnåpent)
Sweden: +46-8-331231 Giftinformationscentralen (24 hour service)
Outside these countries: Please call your local emergency services

2. Hazards identification

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2.1. Classification of the substance or mixture**Classification according to Regulation (EC) No 1272/2008**

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements
Skin corrosion/irritation	Category 1B	---	H314
Flammable liquids	Category 3	---	H226

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

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Directive 67/548/EEC or 1999/45/EC	
Hazard symbol / Category of danger	Risk phrases
	R10
Corrosive (C)	R34

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

Most important adverse effects

- Human Health : See section 11 for toxicological information.
- Physical and chemical hazards : See section 9 for physicochemical information.
- Potential environmental effects : See section 12 for environmental information.

2.2. Label elements**Labelling according to Regulation (EC) No 1272/2008**

Hazard symbols :



Signal word : Danger

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Hazard statements	:	H226 H314	Flammable liquid and vapour. Causes severe skin burns and eye damage.
Precautionary statements			
Prevention	:	P210 P280	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response	:	P301 + P330 + P331 P303 + P361 + P353 P305 + P351 + P338 P370 + P378	IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of fire: Use water spray, foam, carbon dioxide or extinguishing powder for extinction.
Storage	:	P403 + P235	Store in a well-ventilated place. Keep cool.

Hazardous components which must be listed on the label:

- propionic acid

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.
organic solvent

3. Composition/information on ingredients

3.1. Substances

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)	Classification (67/548/EEC)

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	Hazard class / Hazard category	Hazard statements	
propionic acid			
Index-No. : 607-089-00-0	Skin Corr.1B	H314	R10
CAS-No. : 79-09-4	Flam. Liq.3	H226	C; R34
EC-No. : 201-176-3	<= 100		
Registration : 01-2119486971-24-xxxx			

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

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

4. First aid measures**4.1. Description of first aid measures**

- General advice : Take off all contaminated clothing immediately. If breathing is irregular or stopped, administer artificial respiration.
- If inhaled : Remove to fresh air. Give oxygen. Consult a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.
- If swallowed : Clean mouth with water and drink afterwards plenty of water. Call a physician immediately. Do not induce vomiting without medical advice.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms : See Section 11 for more detailed information on health effects and symptoms.
- Effects : See Section 11 for more detailed information on health effects and symptoms.

4.3. Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.No information available.

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5. Firefighting measures**5.1. Extinguishing media**

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet

5.2. Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Flammable. Heating may produce combustible vapour which can form explosive mixture with air. In case of fire hazardous decomposition products may be produced such as: Carbon monoxide

5.3. Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)
- Further information : Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

- Personal precautions : Use personal protective equipment. Keep people away from and upwind of spill/leak. Provide adequate ventilation. Avoid contact with skin and eyes. Do not breathe gas/fumes/vapour/spray.

6.2. Environmental precautions

- Environmental precautions : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Avoid subsoil penetration. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and materials for containment and cleaning up

- Methods and materials for containment and cleaning : Use neutralizing agent. Ensure adequate ventilation. This material and its container must be disposed of as hazardous

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up waste. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Further information : Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on personal protective equipment.
See Section 13 for waste treatment information.

7. Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice. Keep container tightly closed. Provide sufficient air exchange and/or exhaust in work rooms. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures : Smoking, eating and drinking should be prohibited in the application area. Take off all contaminated clothing immediately. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep away from sources of ignition - No smoking. Store in original container.
Requirements for storage areas and containers : To be stored separately from incompatible substances. See section 10.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Further information on storage conditions : Keep tightly closed in a dry and cool place. Keep in a well-ventilated place.

Further information on storage conditions : Storage must follow the regulations for flammable liquids: Class II-2 (DK only).

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Advice on common storage : Materials to avoid alkalis

7.3. Specific end use(s)

Specific use(s) : No information available.

8. Exposure controls/personal protection

8.1. Control parameters

Component: propionic acid

**CAS-No.
79-09-4**

Other Occupational Exposure Limit Values

GV (DK), Threshold Limit Values (TLV):
10 ppm, 30 mg/m³

DK OS, Threshold Limit Values (TLV):
10 ppm

EU ELV, Time Weighted Average (TWA):
10 ppm, 31 mg/m³
Indicative

EU ELV, Short Term Exposure Limit (STEL):
20 ppm, 62 mg/m³
Indicative

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice : Required, if exposure limit is exceeded (e.g. OEL).
Respirator with a gas filter
Recommended Filter type:A

Hand protection

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Advice : Wear suitable gloves.
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Protective gloves should be replaced at first signs of wear.

Material : butyl-rubber
Break through time : > 480 min
Glove thickness : 0,7 mm

Eye protection

Advice : Tightly fitting safety goggles

Skin and body protection

Advice : impervious clothing

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.
Avoid subsoil penetration.
Local authorities should be advised if significant spillages cannot be contained.

9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Form : liquid
Colour : colourless
Odour : stinging
Odour Threshold : no data available
pH : 2,5 (100 g/l; 20 °C)
Melting point/range : < -20 °C

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Boiling point/boiling range	: 104,9 °C
Flash point	: 50,5 °C (Method: ASTM D 93)
Evaporation rate	: 0,24 (Butyl Acetate = 1)
Flammability (solid, gas)	: not applicable
Upper explosion limit	: 12,1 %(V)
Lower explosion limit	: 2,9 %(V)
Vapour pressure	: 0,399 hPa (23 °C)
Relative vapor density	: 2,6 (25 °C) (Air = 1.0)
Density	: 0,995 g/cm ³ (20 °C)
Water solubility	: completely miscible
Partition coefficient: n-octanol/water	: log Kow 0,33
Ignition temperature	: 440 °C
Thermal decomposition	: no data available
Viscosity, dynamic	: 1,02 mPa.s (20 °C)
Viscosity, kinematic	: 1,04 mm ² /s (25 °C)
Explosivity	: Product is not explosive. Formation of explosive air/vapour mixtures is possible.
Oxidizing properties	: no data available

9.2. Other information

Molecular Weight : 74,08 g/mol

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10. Stability and reactivity**10.1. Reactivity**

Advice : Stable under recommended storage conditions.

10.2. Chemical stability

Advice : No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Hazardous reactions : No information available.

10.4. Conditions to avoid

Thermal decomposition : no data available

10.5. Incompatible materials

Materials to avoid : Strong bases, Strong oxidizing agents

10.6. Hazardous decomposition products

Hazardous decomposition products : No decomposition if used as directed.

11. Toxicological information**11.1. Information on toxicological effects****Acute toxicity****Oral**

Cause serious burns with severe pains, vomiting, pains in the stomach, possibly chock and damaged kidneys. The burn may occur even if only small amounts have been swallowed.

Inhalation

Inhalation may cause pain to nose and throat, cough, headache and poorly.
After hours to several days without symptoms may occur severe shortness of breath and pulmonary edema.

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Dermal

Please find this information in the listing of the component/components below in the MSDS.

Irritation

Skin

May cause burns with pain, redness and wounds.

Eyes

Splashes in the eyes may cause painful burns, which may result in permanent damage to the eyes.

Sensitisation

Please find this information in the listing of the component/components below in the MSDS.

CMR effects

CMR Properties

- Carcinogenicity : Please find this information in the listing of the component/components below in the MSDS.
- Mutagenicity : Please find this information in the listing of the component/components below in the MSDS.
- Teratogenicity : Please find this information in the listing of the component/components below in the MSDS.
- Reproductive toxicity : Please find this information in the listing of the component/components below in the MSDS.

Specific Target Organ Toxicity

Single exposure

Currently we do not have any information from our supplier about

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this.

Repeated exposure

Currently we do not have any information from our supplier about this.

Aspiration toxicity

Currently we do not have any information from our supplier about this.

Further information

Experience with human exposure : Contains organic solvents.
Repeated and prolonged exposure to solvents may cause brain and nervous system damage.

Component: propionic acid**CAS-No.
79-09-4****Acute toxicity****Oral**

LD50 : 3455 mg/kg (rat, male and female)

Inhalation

LC50 : > 20 mg/l (rat, male and female; 4 h; vapour)

LC50 : > 19,7 mg/l (rat, male and female; 1 h; vapour)

Dermal

LD50 : > 2000 mg/kg (rabbit)

Sensitisation

not sensitizing (guinea pig)

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CMR effects**CMR Properties**

- Carcinogenicity : Animal testing did not show any carcinogenic effects.
- Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Teratogenicity : Did not show teratogenic effects in animal experiments.
- Reproductive toxicity : Animal testing did not show any effects on fertility.

Further information

- Other relevant toxicity information : Risk of product entering the lungs on vomiting after ingestion. Aspiration may cause pulmonary oedema and pneumonitis. Ingestion may cause irritation to the gastro-intestinal tract with nausea and vomiting.

12. Ecological information**12.1. Toxicity****Component: propionic acid****CAS-No.
79-09-4****Acute toxicity****Fish**

- LC50 : > 1000 mg/l (Leuciscus idus (Golden orfe); 96 h) (static test)
Data based on test results or data from a comparable product.

Toxicity to daphnia and other aquatic invertebrates

- EC50 : > 500 mg/l (Daphnia magna; 48 h)
Data based on test results or data from a comparable product.

algae

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EbC50 : > 500 mg/l (Desmodesmus subspicatus (green algae); 72 h) (static test)
Data based on test results or data from a comparable product.

ErC50 : 48,7 mg/l (Desmodesmus subspicatus (green algae); 72 h) (static test)
Data based on test results or data from a comparable product.

Bacteria

EC50 : 59,6 mg/l (Pseudomonas putida; 17 h) (static test; DIN 38412)
Data based on test results or data from a comparable product.

EC20 : 500 - 1040 mg/l (activated sludge; 0,5 h) (static test)
Data based on test results or data from a comparable product.

12.2. Persistence and degradability

Component: propionic acid	CAS-No.
	79-09-4

Persistence and degradability

Biodegradability

Result : Expected to be readily biodegradable.

12.3. Bioaccumulative potential

Component: propionic acid	CAS-No.
	79-09-4

Bioaccumulation

Result : Bioaccumulation is unlikely.
log Pow < 1

12.4. Mobility in soil

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Component: propionic acid**CAS-No.****79-09-4****Mobility**

: Highly mobile in soils

Distribution among environmental compartments

: Not expected to adsorb on soil.

12.5. Results of PBT and vPvB assessment**Component: propionic acid****CAS-No.****79-09-4****Results of PBT and vPvB assessment**

Result : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects**Additional ecological information**

Result : Neutralization is normally necessary before waste water is discharged into water treatment plants.
Do not flush into surface water or sanitary sewer system.

13. Disposal considerations**13.1. Waste treatment methods**

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Dispose of in accordance with local regulations.

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European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14. Transport information**14.1. UN number**

3463

14.2. UN proper shipping name

ADR : PROPIONIC ACID
RID : PROPIONIC ACID
IMDG : PROPIONIC ACID

14.3. Transport hazard class(es)

ADR-Class : 8
(Labels; Classification Code; Hazard identification No; Tunnel restriction code) 8, 3; CF1; 83; (D/E)
RID-Class : 8
(Labels; Classification Code; Hazard identification No) 8, 3; CF1; 83
IMDG-Class : 8
(Labels; EmS) 8, 3; F-E, S-C

14.4. Packaging group

ADR : II
RID : II
IMDG : II

14.5. Environmental hazards

Labeling according to 5.2.1.8 ADR : no
Labeling according to 5.2.1.8 RID : no
Labeling according to 5.2.1.6.3 IMDG : no
Classification as environmentally hazardous according to 2.9.3 IMDG : no

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Classified as "P" according to 2.10 IMDG : no

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

15. Regulatory information

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

Notification status

propionic acid:

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
INV (CN)	YES	
ENCS (JP)	YES	(2)-602
ISHL (JP)	YES	(2)-602
TSCA	YES	
EINECS	YES	201-176-3
KECI (KR)	YES	KE-29352
PICCS (PH)	YES	

15.2. Chemical Safety Assessment

Currently we do not have any information from our supplier about this.

16. Other information

Full text of R-phrases referred to under sections 2 and 3.

R10 Flammable.
R34 Causes burns.

Full text of H-Statements referred to under sections 2 and 3.

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H226

Flammable liquid and vapour.

H314

Causes severe skin burns and eye damage.

Further information

Other information : The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

|| Indicates updated section.