

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22
Version: 4.0

Page: 1/14
(30041211/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

ACRYLIC ACID GLACIAL

Recommended use of the chemical and restriction on use

Recommended use*: Monomer.

for industrial use only

Unsuitable for use: cosmetics; Pharmaceutical

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

Covalent Chemical
6501 Creedmoor Rd. Ste 207
Raleigh , NC 27613, USA

Telephone: +1 919-825-1400

Emergency telephone number

CHEMTREC: 1-800-424-9300

Other means of identification

Molecular formula: C3 H4 O2
Chemical family: unsaturated, aliphatic, carboxylic acid, stabilized
Synonyms: 2-Propenoic acid

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Flam. Liq.	3	Flammable liquids
Acute Tox.	4 (Inhalation - vapour)	Acute toxicity
Acute Tox.	4 (oral)	Acute toxicity
Skin Corr./Irrit.	1A	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22
Version: 4.0

Page: 2/14
(30041211/SDS_GEN_US/EN)

Aquatic Acute	1	Hazardous to the aquatic environment - acute
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:



Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist or vapour.
P243	Take action to prevent static discharges.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P270	Do not eat, drink or smoke when using this product.
P264	Wash with plenty of water and soap thoroughly after handling.
P233	Keep container tightly closed.
P242	Use only non-sparking tools.
P240	Ground and bond container and receiving equipment.

Precautionary Statements (Response):

P310	Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303 + P361 + P352	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P301 + P330	IF SWALLOWED: rinse mouth.
P391	Collect spillage.
P370 + P378	In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.

Precautionary Statements (Storage):

P405	Store locked up.
P403 + P235	Store in a well-ventilated place. Keep cool.

Precautionary Statements (Disposal):

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22
Version: 4.0

Page: 3/14
(30041211/SDS_GEN_US/EN)

P501 Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture. See section 12 - Results of PBT and vPvB assessment.

Labeling of special preparations (GHS):

Risk of hazardous polymerization under certain conditions (e.g. elevated temperatures, low inhibitor and oxygen concentration).

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
79-10-7	> 99.6%	acrylic acid

4. First-Aid Measures

Description of first aid measures

General advice:

Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Flush with copious amounts of water for at least 15 minutes. Sterile protective dressing. Immediate medical attention required.

If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: skin corrosion

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Hazards: Risk of pulmonary edema. Symptoms can appear later.

Indication of any immediate medical attention and special treatment needed

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22
Version: 4.0

Page: 4/14
(30041211/SDS_GEN_US/EN)

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary edema.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
carbon dioxide, dry powder, water spray, foam

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
Risk of violent self-polymerization if overheated in a container.

Vapours may form explosive mixture with air.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure build up due to heat. The product or its combustible parts are soluble in water. Contaminated extinguishing water must be disposed of in accordance with official regulations.

In case of a fire in the vicinity a restabilization system should be used if the temperature in the storage container reaches 45°C. Evacuate area of all unnecessary personnel. In case of a fire in the vicinity evacuate all personnel in a greater area if the temperature in the storage container reaches 60°C.

Impact Sensitivity:

Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Breathing protection required. Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing.

Environmental precautions

Substance/product is RCRA hazardous due to its properties.

Methods and material for containment and cleaning up

Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22

Version: 4.0

Page: 5/14

(30041211/SDS_GEN_US/EN)

Handle in accordance with good industrial hygiene and safety practice. The substance/ product may be handled only by appropriately trained personnel.

Ensure thorough ventilation of stores and work areas. When filling, transferring, or emptying of containers, adequate local exhaust ventilation is necessary. Vent waste air to atmosphere only through suitable separators. Check the condition of seals and connector screw threads.

Protect contents from the effects of light. Protect from direct sunlight. Protect against heat. Do not open warm or swollen product containers. Remove persons to safety and alert fire brigade.

Ensure adequate inhibitor and dissolved oxygen level.

Because of the possible separation from the stabilizer the product should never be partially melted and taken. Ensure that there is no crystallized product in the container before use. Obtain information from supplier/ manufacturer before dissolving totally or partially crystallized product. The ambient temperature of the container may not exceed the stated temperature limit when melting the product or keeping it at moderate temperature.

Ground and/or bond all equipment to prevent electrostatic charges. Avoid all sources of ignition: heat, sparks, open flame.

Protection against fire and explosion:

Ground all transfer equipment properly to prevent electrostatic discharge. Containers should be grounded against electrostatic charge. It is recommended that all conductive parts of the machinery are grounded. Vapours may form ignitable mixture with air. Avoid all sources of ignition: heat, sparks, open flame.

Heated containers should be cooled to prevent polymerization. If exposed to fire, keep containers cool by spraying with water.

Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition.

Temperature class: T2 (Autoignition temperature >300 °C).

Conditions for safe storage, including any incompatibilities

Segregate from combustible materials.

Further information on storage conditions: Prior to storage ensure that the transfer equipment used and the intended storage containers do not contain other substances/products. Before transfer to stock the identity of the product must be proved to be without doubt. The entrance to storage rooms is to be granted only to appropriately trained personnel.

The stabilizer is only effective in the presence of oxygen. Maintain contact with atmosphere containing 5 - 21% oxygen. Never use tanks with inert-gas installation for storage.

Risk of polymerization. Protect against heat. Avoid UV-light and other radiation with high energy. Protect against contamination.

All storage containers should at least be equipped with two high temperature alert devices.

Do not store product below the indicated minimum temperature, because crystallization should be absolutely avoided.

Storage stability:

Storage temperature: 15 - 25 °C

Storage duration: 12 Months

The stated storage temperature should be noted.

Avoid prolonged storage.

This product should be processed as soon as possible.

During storage, an unavoidable dimerization takes place, which reaction rate can be reduced by a storage temperature as low as possible.

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22
Version: 4.0

Page: 6/14
(30041211/SDS_GEN_US/EN)

It is recommended to keep a safe distance of +2 degrees above the crystallization range.
The product is stabilized, the shelf life should be noted.
Do not store with less than 10 % headspace above liquid.
Ensure adequate inhibitor and dissolved oxygen level.
Storage temperature: 45 °C
A restabilization system should be used if the temperature in the storage container reaches the indicated value.
Storage temperature: 60 °C
All personnel in a greater area should be evacuated if the temperature in the storage container reaches the indicated value.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

acrylic acid	OSHA PEL	SKIN_FINAL ; The substance can be absorbed through the skin. TWA value 10 ppm 30 mg/m3 ;
	ACGIH TLV	TWA value 2 ppm ; Skin Designation ; The substance can be absorbed through the skin.

Advice on system design:

Provide local exhaust ventilation to maintain recommended P.E.L.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:

Chemical resistant protective gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles).

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 or EN ISO 13982 in case of dust), protection boots (f.e. according to EN 20346), antistatic

General safety and hygiene measures:

Avoid inhalation of vapour. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Eye wash fountains and safety showers must be easily accessible. Wash soiled clothing immediately.

9. Physical and Chemical Properties

Form:	liquid
Odour:	biting, acetous
Odour threshold:	not determined
Colour:	colourless
pH value:	2 (approx. 70 g/l, 20 °C) Literature data.

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22

Version: 4.0

Page: 7/14

(30041211/SDS_GEN_US/EN)

Melting point:	13 °C	
	Literature data.	
Boiling point:	141 °C (1,013 hPa)	
	Literature data.	
Sublimation point:	No applicable information available.	
Flash point:	48.5 °C	(DIN 51755, closed cup)
Flammability:	Flammable.	
Lower explosion limit:	(46 °C) The lower explosion point of the substance/mixture has been determined. The explosion point describes the temperature of a flammable liquid at which the concentration of the saturated vapour mixed with air equals the lower explosion limit. 3.9 %(V)	(air)
	Literature data.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Autoignition:	438 °C	
SADT:	> 75 °C Heat accumulation / Dewar 500 ml (SADT, UN-Test H.4, 28.4.4)	
Vapour pressure:	5.29 hPa (25 °C)	
	Literature data.	
Density:	1.05 g/cm ³ (20 °C)	
	Literature data.	
	1.0161 g/cm ³ (50 °C)	(OECD Guideline 109)
Relative density:	1.05 (20 °C)	
	Literature data.	
Vapour density:	2.5	
Partitioning coefficient n-octanol/water (log Pow):	0.46 (25 °C)	(OECD Guideline 107)
Self-ignition temperature:	Based on its structural properties the product is not classified as self-igniting.	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated. It is not a self-decompositionable substance.	
Viscosity, dynamic:	1.149 mPa.s (25 °C)	
	Literature data.	
Viscosity, kinematic:	(20 °C) not determined	
Solubility in water:	(25 °C) miscible, Literature data.	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	miscible solvent(s): organic solvents,	
Molar mass:	72.06 g/mol	

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22
Version: 4.0

Page: 8/14
(30041211/SDS_GEN_US/EN)

Evaporation rate: Value can be approximated from Henry's Law Constant or vapor pressure.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrodes metals in the presence of water or moisture.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.
-------------------------------	----------	--

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Explosion and fire hazard exists under confined conditions. Ignitable air mixtures can form when the product is heated above the flash point and/or when sprayed or atomized.

Risk of spontaneous and violent self-polymerization if inhibitor is lost or product is exposed to excessive heat. Risk of spontaneous polymerization when heated or in the presence of UV radiation. With unstabilised product, spontaneous polymerisation may occur e.g. through ambient heat.

Polymerization coupled with heat formation. Polymerization produces gases which may burst closed or confined containers. Reactions may cause ignition.

Risk of spontaneous polymerization by oxygen depletion of the liquid phase.

Radical formation can cause exothermic polymerization. Reacts with peroxides and other radical components. Risk of spontaneous polymerization in the presence of starters for radical chain reactions (e.g. peroxides). Reacts with nitric acid. Polymerizes explosively in contact with strong oxidizing agents.

Hazardous reactions in presence of mentioned substances to avoid.

The product is stabilized against spontaneous polymerization prior to despatch. The product is stable if stored and handled as prescribed/indicated.

Conditions to avoid

Avoid heat. Avoid oxygen content above the product of less than 5 %. Do not blanket with nitrogen. Avoid UV-light and other radiation with high energy. Avoid direct sunlight. Avoid prolonged storage. Avoid inhibitor loss. Avoid excessive temperatures. Avoid temperatures below the crystallization range.

Incompatible materials

radical formers, free radical initiators, peroxides, mercaptans, nitro-compounds, perborates, azides, ether, ketones, aldehydes, amines, nitrates, nitrites, oxidizing agents, reducing agents, strong bases, alkaline reactive substances, acid anhydrides, acid chlorides, concentrated mineral acids, metal salts halides, iron oxides

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22

Version: 4.0

Page: 9/14

(30041211/SDS_GEN_US/EN)

No decomposition if stored and handled as prescribed/indicated.
It is not a self-decomposable substance.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Of moderate toxicity after short-term inhalation. Of moderate toxicity after single ingestion. Virtually nontoxic after a single skin contact. The European Union (EU) has classified this substance as 'harmful' after dermal exposure.

Oral

Type of value: LD50

Species: rat

Value: 1,500 mg/kg (BASF-Test)

Inhalation

Type of value: LC50

Species: rat (male/female)

Value: > 5.1 mg/l (OECD Guideline 403)

Exposure time: 4 h

The vapour was tested.

Dermal

Type of value: LD50

Species: rabbit (male/female)

Value: > 2,000 mg/kg (OECD Guideline 402)

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion

Assessment of irritating effects: Corrosive! Damages skin and eyes.

Skin

Species: rabbit

Result: strongly corrosive

Method: OECD Guideline 404

Eye

Species: rabbit

Result: Risk of serious damage to eyes.

Method: BASF-Test

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22
Version: 4.0

Page: 10/14
(30041211/SDS_GEN_US/EN)

Freund's complete adjuvant test (FCA)
Species: guinea pig
Result: Non-sensitizing.

Aspiration Hazard
not applicable

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation.

Genetic toxicity
Assessment of mutagenicity: In the majority of tests performed (bacteria/microorganisms/cell cultures) a mutagenic effect was not found. A mutagenic effect was also not observed in in-vivo assays.

Carcinogenicity
Assessment of carcinogenicity: Results from a number of long-term carcinogenicity studies are available. Taking into account all of the information, there is no indication that the substance itself is carcinogenic. IARC Group 3 (not classifiable as to human carcinogenicity).

Reproductive toxicity
Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity
Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Symptoms of Exposure

skin corrosion
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Medical conditions aggravated by overexposure
Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See MSDS section 11 - Toxicological information.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Very toxic (acute effect) to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. Toxic to aquatic organisms based on long-term (chronic) toxicity study data.

Toxicity to fish
LC50 (96 h) 27 mg/l, *Salmo gairdneri*, syn. *O. mykiss* (EPA 72-1, Flow through.)
The statement of the toxic effect relates to the analytically determined concentration.

Aquatic invertebrates

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22
Version: 4.0

Page: 11/14
(30041211/SDS_GEN_US/EN)

EC50 (48 h) 95 mg/l, Daphnia magna (Daphnia test acute, Flow through.)
The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants

EC50 (72 h) 0.13 mg/l (growth rate), Scenedesmus subspicatus (Guideline 92/69/EEC, C.3, static)
The details of the toxic effect relate to the nominal concentration.

EC10 (72 h) 0.03 mg/l (growth rate), Scenedesmus subspicatus (Guideline 92/69/EEC, C.3, static)
The details of the toxic effect relate to the nominal concentration.

Chronic toxicity to fish

Study not necessary due to exposure considerations.

Chronic toxicity to aquatic invertebrates

No observed effect concentration (21 d) 3.8 mg/l, Daphnia magna (OPP 72-4 (EPA-Guideline), Flow through.)

The statement of the toxic effect relates to the analytically determined concentration.

Assessment of terrestrial toxicity

Study scientifically not justified.

Soil living organisms

Toxicity to soil dwelling organisms:

No observed effect concentration (28 d) 100 ppm, other soil dwelling microorganisms (OECD 217, artificial soil)

LC50 (14 d) > 1,000 mg/kg, Eisenia foetida (Directive 88/302/EEC, part C, p. 95, artificial soil)

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN EN ISO 8192 aquatic
activated sludge, domestic/EC20 (0.5 h): 900 mg/l
Nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Readily biodegradable (according to OECD criteria).

Elimination information

90 - 100 % DOC reduction (9 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic, non-adapted)

Assessment of stability in water

In contact with water the substance will hydrolyse slowly.

Information on Stability in Water (Hydrolysis)

t_{1/2} > 365 d (25 °C), (OECD Guideline 111, pH 7)

Bioaccumulative potential

Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected.

Bioaccumulation potential

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22
Version: 4.0

Page: 12/14
(30041211/SDS_GEN_US/EN)

Bioconcentration factor: 3.16 (calculated)

Mobility in soil

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Incinerate or dispose of in a RCRA-licensed facility. Do not discharge into drains/surface waters/groundwater.

Dispose of in accordance with national, state and local regulations.

Container disposal:

WARNING: Empty containers may still contain hazardous residue. Flammable vapors may exist in containers in which residues of this product remain. Dispose of in a licensed facility.

RCRA: U008

14. Transport Information

Land transport

USDOT

Hazard class: 8
Packing group: II
ID number: UN 2218
Hazard label: 8, 3, EHSM
Proper shipping name: ACRYLIC ACID, STABILIZED

Sea transport

IMDG

Hazard class: 8
Packing group: II
ID number: UN 2218
Hazard label: 8, 3, EHSM
Marine pollutant: YES
Proper shipping name: ACRYLIC ACID, STABILIZED

Air transport

IATA/ICAO

Hazard class: 8
Packing group: II
ID number: UN 2218
Hazard label: 8, 3
Proper shipping name: ACRYLIC ACID, STABILIZED

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22
Version: 4.0

Page: 13/14
(30041211/SDS_GEN_US/EN)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

EPCRA 313:

<u>CAS Number</u>	<u>Chemical name</u>
79-10-7	acrylic acid

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
5000 LBS	79-10-7	acrylic acid

Reportable Quantity for release: 5,000 lb

NFPA Hazard codes:

Health: 3 Fire: 2 Reactivity: 2 Special:

HMIS III rating

Health: 3 Flammability: 2 Physical hazard: 2

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Acute Tox.	4 (Inhalation - vapour)	Acute toxicity
Flam. Liq.	3	Flammable liquids
Skin Corr./Irrit.	1A	Skin corrosion/irritation
Aquatic Acute	1	Hazardous to the aquatic environment - acute
Acute Tox.	4 (oral)	Acute toxicity
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic
Eye Dam./Irrit.	1	Serious eye damage/eye irritation

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2018/01/22

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

Safety Data Sheet

ACRYLIC ACID GLACIAL

Revision date : 2018/01/22

Version: 4.0

Page: 14/14

(30041211/SDS_GEN_US/EN)

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK. This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use.

Any other intended applications should be discussed with the manufacturer.

Safe Handling and Storage aspects are covered in a brochure which is available on request.

END OF DATA SHEET