



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

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

1.1 Product identifier

Trade name : Acrylic Acid (stabilized with MEHQ)
Product code : A0141
Index-No. : 607-061-00-8
EC-No. : 201-177-9

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

Use of the Substance/Mixture : Use as laboratory reagent

1.3 Details of the supplier of the safety data sheet

Company : TCI EUROPE N.V.
Address : Boereveldseweg 6 - Haven 1063, B-2070 Zwijndrecht, Belgium
Telephone : +32 (0)3 735 07 00
Telefax : +32 (0)3 735 07 01
E-mail address of person responsible for the SDS : sales-eu@tcichemicals.com

1.4 Emergency telephone number

Emergency telephone number : +44 844 892 0111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Corrosive to metals, Category 1	H290: May be corrosive to metals.
Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 3	H331: Toxic if inhaled.
Acute toxicity, Category 3	H311: Toxic in contact with skin.
Skin corrosion, Sub-category 1A	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Specific target organ toxicity - single exposure, Category 1, Respiratory system, Kidney	H370: Causes damage to organs.
Specific target organ toxicity - single exposure, Category 2, Liver	H371: May cause damage to organs.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ toxicity - repeated exposure, Category 1, Respiratory system	H372: Causes damage to organs through prolonged or repeated exposure.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements :
H226 Flammable liquid and vapour.
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H311 + H331 Toxic in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H370 Causes damage to organs (Respiratory system, Kidney).

H371 May cause damage to organs (Liver).
 H372 Causes damage to organs (Respiratory system) through prolonged or repeated exposure.
 H400 Very toxic to aquatic life.

Precautionary statements : **Prevention:**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
 P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
 P391 Collect spillage.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
 Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
 Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : Acrylic Acid (stabilized with MEHQ)
 Index-No. : 607-061-00-8
 EC-No. : 201-177-9

Components

Chemical name	CAS RN EC-No.	Concentration (% w/w)	M-Factor, SCL, ATE
Acrylic Acid	79-10-7 201-177-9	>= 90 - <= 100	specific concentration limit STOT SE 3; H335 >= 1 %

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

In case of skin contact : Take off all contaminated clothing immediately.

- If on skin, rinse well with water.
Call a POISON CENTER or doctor/ physician.
- In case of eye contact : Rinse with plenty of water.
If easy to do, remove contact lens, if worn.
Immediately call a POISON CENTER or doctor/ physician.
- If swallowed : Immediately call a POISON CENTER or doctor/ physician.
Rinse mouth.
Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

None known.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Dry powder, Foam, Water spray, Carbon dioxide (CO₂)

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : No information available.

5.3 Advice for firefighters

- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Cool closed containers exposed to fire with water spray. Remove undamaged containers from fire area if it is safe to do so.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

6.2 Environmental precautions

- Environmental precautions : Should not be released into the environment.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Collect as much of the spill as possible with a suitable absorbent material.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Technical measures : Prevent generation of vapour or mist.
Take precautionary measures against static discharge.
Use explosion-proof equipment.
- Local/Total ventilation : Ensure adequate ventilation.
Handle product only in closed system or provide appropriate exhaust ventilation at machinery.
Use a local exhaust ventilation.

Advice on safe handling : Avoid contact with skin, eyes and clothing.
 Wear personal protective equipment.
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Do not subject to grinding, shock or friction.
 Wash hands and face thoroughly after handling.
 Keep only in original packaging.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed. Store in a cool and shaded area. Keep in a well-ventilated place. Use explosion-proof equipment. Keep under inert gas. Store locked up. Avoid exposure to light.

Storage class (TRGS 510) : 3

7.3 Specific end use(s)

Specific use(s) : No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS RN	Value type (Form of exposure)	Control parameters	Basis
Acrylic Acid	79-10-7	STEL	20 ppm 59 mg/m ³	2017/164/EU
	Further information: Indicative			
		TWA	10 ppm 29 mg/m ³	2017/164/EU
	Further information: Indicative			
		AGW	10 ppm 30 mg/m ³	DE TRGS 900
	Peak-limit: excursion factor (category): 1;=2=(I)			
	Further information: Skin absorption, When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		MAK	10 ppm 30 mg/m ³	DE DFG MAK
	Peak-limit: excursion factor (category): 1; I			
	Further information: Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			

8.2 Exposure controls

Engineering measures

Install a closed system or local exhaust.
 Also install safety shower and eye bath.

Personal protective equipment

Eye/face protection : Safety glasses, Safety goggles, Face-shield
 Hand protection : Impervious gloves
 Skin and body protection : Impervious protective clothing

Respiratory protection : Gas mask
 Self-contained breathing apparatus

*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Colour	: colourless
Odour	: No data available
Odour Threshold	: 0,094 ppm
Melting point/freezing point	: 13 °C
Boiling point/boiling range	: 141 °C
Flammability	: No data available
Upper explosion limit / Upper flammability limit	: 8 %(V)
Lower explosion limit / Lower flammability limit	: 2,4 %(V)
Flash point	: 51 °C
Auto-ignition temperature	: 360 °C
Decomposition temperature	: No data available
pH	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Solubility(ies)	
Water solubility	: completely miscible
Solubility in other solvents	: Solvent: Ether completely miscible
	Solvent: Alcohol completely miscible
	Solvent: Benzene soluble
	Solvent: Acetone soluble
Partition coefficient: n-octanol/water (log value)	: 0,37
Vapour pressure	: 413 Pa (20 °C)
Relative density	: 1,05
Relative vapour density	: 2,5
Particle characteristics	: No data available

9.2 Other information

Refractive index	: 1,42
Molecular weight	: 72,06 g/mol

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

No data available

10.2 Chemical stability

Polymerization may occur under the influences of heat, light or on contact with polymerization initiators such as peroxides etc.

10.3 Possibility of hazardous reactions

Hazardous reactions : None under normal processing.

10.4 Conditions to avoid

Conditions to avoid : Heat, Electrical spark, Open flame, Electrostatic discharge, Exposure to air., Exposure to light.

10.5 Incompatible materials

Materials to avoid : Amines,
Strong bases,
Oxidizing agents,
Copper,

10.6 Hazardous decomposition productsCarbon monoxide, Carbon dioxide (CO₂)**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity****Product:**

- Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.
- Acute inhalation toxicity : Assessment: The component/mixture is toxic after short term inhalation.
- Acute dermal toxicity : Assessment: The component/mixture is toxic after single contact with skin.

Components:**Acrylic Acid:**

- Acute oral toxicity : LD50 (Rat): 33,5 mg/kg
Assessment: The component/mixture is moderately toxic after single ingestion.
- Acute inhalation toxicity : LCLo (Rat): 4000 ppm
Exposure time: 4 h
Test atmosphere: gas
Assessment: The component/mixture is toxic after short term inhalation.
- Acute dermal toxicity : LD50 (Rabbit): 294 mg/kg
Assessment: The component/mixture is toxic after single contact with skin.
- Acute toxicity (other routes of administration) : LD50 (Rat): 22 mg/kg
Application Route: Intraperitoneal injection

Skin corrosion/irritation**Product:**

- Result : Causes severe burns.

Components:**Acrylic Acid:**

- Result : Causes severe burns.

Serious eye damage/eye irritation**Product:**

- Result : Irreversible effects on the eye

Components:**Acrylic Acid:**

- Result : Irreversible effects on the eye

Respiratory or skin sensitisation : No information available.

Germ cell mutagenicity : No information available.

Carcinogenicity : No information available.

Reproductive toxicity : No information available.

STOT - single exposure

Product:

Target Organs : Respiratory system, Kidney
Assessment : Causes damage to organs.

Target Organs : Liver
Assessment : May cause damage to organs.

Components:

Acrylic Acid:

Target Organs : Respiratory system, Kidney
Assessment : Causes damage to organs.

Target Organs : Liver
Assessment : May cause damage to organs.

STOT - repeated exposure

Product:

Target Organs : Respiratory system
Assessment : Causes damage to organs through prolonged or repeated exposure.

Components:

Acrylic Acid:

Target Organs : Respiratory system
Assessment : Causes damage to organs through prolonged or repeated exposure.

Repeated dose toxicity : No information available.

Aspiration hazard : No information available.

RTECS No. : AS4375000 (Acrylic Acid)

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Components:

Acrylic Acid:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): 62 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 47 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 0,75 mg/l
Exposure time: 72 h

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Components:

Acrylic Acid:

Partition coefficient: n-octanol/water (log value) : 0,37

12.4 Mobility in soil

Components:

Acrylic Acid:

Distribution among environmental compartments : Koc: 6 - 137

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Disposal in accordance with local and national regulations.
Take precautions against ignition or explode.
Entrust disposal to a licensed waste disposal company.

Contaminated packaging : Disposal in accordance with local and national regulations.
Before disposal of used container, remove contents completely.

SECTION 14: Transport information

14.1 UN number or ID number

ADR : UN 2218
 IMDG : UN 2218
 IATA : UN 2218

14.2 UN proper shipping name

ADR : ACRYLIC ACID, STABILIZED
 IMDG : ACRYLIC ACID, STABILIZED
 IATA : Acrylic acid, stabilized

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADR	: 8	3
IMDG	: 8	3
IATA	: 8	3

14.4 Packing group

ADR
 Packing group : II
 Classification Code : CF1
 Hazard Identification Number : 839
 Tunnel restriction code : (D/E)

IMDG
 Packing group : II
 EmS Code : F-E, S-C

IATA (Cargo)
 Packing instruction (cargo aircraft) : 855
 Packing instruction (LQ) : Y840
 Packing group : II

IATA (Passenger)
 Packing instruction (passenger aircraft) : 851
 Packing instruction (LQ) : Y840
 Packing group : II

14.5 Environmental hazards

ADR
 Environmentally hazardous : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:
 Number on list 40, 3

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Candidate List of Substances of Very High Concern : Not applicable

for Authorisation (Article 59).

Regulation (EC) on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Water hazard class (Germany) : WGK 2 obviously hazardous to water
Code Number: 11
Classification according to AwSV, Annex 1 (4)

Other regulations:

The product is subject to the supply restrictions of the Ordinance on the Prohibition of Chemicals.

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

The components of this product are reported in the following inventories:

CH BAGREG	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory
AICS	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: Not in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of other abbreviations

2017/164/EU	: Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
DE DFG MAK	: Germany. MAK BAT Annex IIa
DE TRGS 900	: Germany. TRGS 900 - Occupational exposure limit values.
2017/164/EU / STEL	: Short term exposure limit
2017/164/EU / TWA	: Limit Value - eight hours
DE DFG MAK / MAK	: MAK value
DE TRGS 900 / AGW	: Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Cooperation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

DE / 6N