

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

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

· 1.1 Product identifier

· **Trade name:** Glacial acetic acid-Analytical Grade

· **Article number:** 20-5500-10

· **CAS Number:**
64-19-7

· **EC number:**
200-580-7

· **Index number:**
607-002-00-6

· **Registration number** 01-2119475328-30

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

In cleaning agents, in oil field drilling and production operations, In water treatment formulations, as a laboratory reagent, as a chemical intermediate, as a fuel, in the production of agrochemicals.; textile processing; hydraulic fracturing in oil and gas operations; coatings; in fragrance compounds; flavour for tobacco products; use as modified polymers; cosmetics; food ingredient; surface treatment products (e.g. ceramic, semiconductor); personal care products; air care products.

· **Product category**

PC1 Adhesives, sealants

PC3 Air care products

PC4 Anti-Freeze and de-icing products

PC7 Base metals and alloys

PC8 Biocidal products

PC9a Coatings and paints, thinners, paint removers

PC9b Fillers, putties, plasters, modelling clay

PC9c Finger paints

PC12 Fertilisers

PC14 Metal surface treatment products

PC15 Non-metal-surface treatment products

PC18 Ink and toners

PC19 Intermediate

PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents

PC21 Laboratory chemicals

PC22 Lawn and Garden Preparations, including fertilizers

PC23 Leather treatment products

PC24 Lubricants, greases, release products

PC26 Paper and board treatment products

PC27 Plant protection products

PC28 Perfumes, fragrances

PC29 Pharmaceuticals

PC30 Photo-chemicals

PC31 Polishes and wax blends

PC32 Polymer preparations and compounds

PC33 Semiconductors

PC34 Textile dyes, and impregnating products

PC35 Washing and cleaning products (including solvent based products)

PC37 Water treatment chemicals

PC38 Welding and soldering products, flux products

PC39 Cosmetics, personal care products

PC40 Extraction agents

PC41: Oil and gas exploration or production products

PC 0: Other: components for liquid dyes mixture

PC 0: Other: solvent

PC 0: Other: Oil and gas field fracturing products

PC 0: Other: solvent for paper dye

· **Article category**

AC5 Fabrics, textiles and apparel

AC6 Leather articles

AC8 Paper articles

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 1)

- **Application of the substance / the mixture**

The substance is used in many industrial processes and as a food additive (E260: preservative, acidity regulator).

- **Uses advised against**

Processes involving extreme heat use advised against.

Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).

Any use involving aerosol formation or vapour or dust release in excess of the assigned workplace exposure limits where workers are exposed without suitable respiratory protective equipment (RPE).

Processes involving the use of incompatible substances - refer to section 10.

The product is strictly intended for industrial or professional use only.

- **1.3 Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Severn Biotech Ltd.

Unit 2,

Park Lane,

Kidderminster,

Worcestershire.

DY11 6TJ

UK

Tel: 0044 1562 825286

Fax: 0044 1562 825284

email: info@severnbiotech.com

- **Further information obtainable from:** Product safety department.

- **1.4 Emergency telephone number:**

UK National Poisons Information Service. E-mail: npis.birmingham@nhs.net; Tel: +44 (0)344 892 0111

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**



flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms** GHS02, GHS05

- **Signal word** Danger

- **Hazard-determining components of labelling:**

Acetic acid

- **Hazard statements**

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

- **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 2)

- P260 Do not breathe mist/vapours/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 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.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**
64-19-7 Acetic acid
- **Identification number(s)**
- **EC number:** 200-580-7
- **Index number:** 607-002-00-6
- **Description:** Acetic acid

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Corrosive all bodily tissues.
First-aiders:
No action shall be taken involving any personal risk or without suitable training.
If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
Corrosive all bodily tissues.
- **After inhalation:**
DO NOT DELAY!
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
DO NOT DELAY!
Remove contaminated clothing
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
DO NOT DELAY!
Check for and remove any contact lenses.
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
DO NOT DELAY!
Wash mouth out with water
Drink plenty of water and provide fresh air. Call for a doctor immediately.
Do not induce vomiting; call for medical help immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- **Information for doctor:**
Treat symptomatically and supportively.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 3)

Refer to section 11.

· **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

Reacts with most metals to produce hydrogen gas which can form explosive mixtures with air.

Flammable liquid and vapour.

Vapours may form explosive mixtures with air.

Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Runoff to sewer may create fire or explosion hazard.

This material is not explosive as defined by established regulatory criteria.

Mixable with water.

Hygroscopic.

Volatile.

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

· **Additional information**

Cool surrounding containers with water spray.

If possible, take container out of dangerous zone.

Heating causes a rise in pressure, risk of bursting and explosion.

Shut off sources of ignition.

Beware of backfire.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Keep ignition sources away - no smoking.

· **6.2 Environmental precautions:**

Do not allow to penetrate the ground/soil.

Do not allow product to reach sewage system or any water course in the undiluted form.

· **6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

LARGE SPILL

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

SMALL SPILL

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 4)

HANDLING:

Do not get in eyes, on skin or on clothing. Use only with adequate ventilation. Do not breathe vapour or mist. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling. Empty containers may contain toxic, flammable/combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Welding and other hot work operations in the work area must only be permitted under supervision.

The product must only be handled by authorised, trained and experienced professionals under strictly controlled conditions.

Conduct maintenance and other work on or in storage/reactor/mixing vessels or closed spaces ONLY under strict Permit to Work conditions.

Inspect the electrical fittings regularly against the risk of corrosion.

Ensure good ventilation/exhaustion at the workplace.

Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.

- **Information about fire - and explosion protection:**

Ground and bond containers when transferring material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Use plant, equipment and protective systems intended for use in potentially explosive atmospheres.

At elevated temperatures explosive vapour/air mixtures may be formed. At elevated temperatures use a closed system, ventilation, and explosion-proof electrical equipment.

Flash point: 40°C

Ignition temperature: 485 °C

Temperature class: T1

Max. exper. safe gap (MESG): 1.69 mm

Explosion group: IIA

Lower explosion limit: 4 vol. %

Upper explosion limit: 17 vol. %

Maximum explosion pressure: 6.3 bar

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Prevent any seepage into the ground.

Suitable materials: Glass; Aluminium; Polyethylene PE; Polytetrafluoro ethylene PTFE (Teflon); V4A steel, silver. Caution: for acid concentration > 90% glass containers may break if the temperature is below 17°C due to congealing of the acid.

Unsuitable materials: Iron; Copper; Brass; Zinc.

- **Information about storage in one common storage facility:** Store away from metals.

- **Further information about storage conditions:**

Protect from frost.

Store in a banded area.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 5)

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**

64-19-7 Acetic acid

WEL	Short-term value: 50 mg/m ³ , 20 ppm
	Long-term value: 25 mg/m ³ , 10 ppm

· **DNELs**

Workers

Acute / short-term exposure - local effects

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 25 mg/m³

Long-term exposure - local effects

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 25 mg/m³

General population

Acute / short-term exposure - local effects

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 25 mg/m³

Long-term exposure - local effects

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 25 mg/m³

· **PNECs**

PNEC aqua (freshwater): 3.058 mg/L

PNEC aqua (marine water): 0.3058 mg/L

PNEC aqua (intermittent releases): 30.58 mg/L

PNEC STP: 85 mg/L

PNEC sediment (freshwater): 11.36 mg/kg sediment dw

PNEC sediment (marine water): 1.136 mg/kg sediment dw

PNEC soil: 0.47 mg/kg soil dw

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Take note of assigned Workplace Exposure Limits.

Do not eat, drink, smoke or sniff while working.

Ensure that washing facilities are available at the work place.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

A safe system of work must be formulated and followed to ensure safe working with this product. Relevant workers must receive suitable and sufficient training and supervision.

Ensure that eyewash stations and safety showers are close to the workstation location.

A safety shower should be available close to the work area.

· **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 6)

· Protection of hands:


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:


Tightly sealed goggles

· Body protection:

Acid resistant protective clothing

Do not get on skin or clothing. Wear clothing and footwear that cannot be penetrated by chemicals or oil. Suitable protective equipment may include: Chemical resistant boots, Chemical resistant apron, Full chemical protective suit with a hood, Chemical protective suit consisting of a jacket and trousers. The jacket should be buttoned up to the neck, sleeves sealed at the gloves, and trouser legs worn outside the boots. These precautions are required to prevent the clothing from accidentally trapping product against the skin.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties
· General Information
· Appearance:

Form:	Fluid
Colour:	Clear
· Odour:	Pungent
· Odour threshold:	1 - 5ppm

· pH-value at 20 °C:	2.5
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· Change in condition

Melting point/freezing point:	16.6 °C
Initial boiling point and boiling range:	118 °C

· Flash point:	40 - 51 °C
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· Ignition temperature:	485 °C
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· Auto-ignition temperature:	Product is not self-igniting.
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· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
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· Explosion limits:

Lower:	4 Vol %
Upper:	17 Vol %

· Vapour pressure at 20 °C:	16 hPa
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· Density at 20 °C:	1.05 g/cm ³
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(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 7)

· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water:	-0.17 log POW
· Viscosity: Dynamic at 20 °C:	1.22 mPas
· 9.2 Other information	NOTE: The physical data presented above are typical values and should not be construed as a specification. Conductivity: $6 \cdot 10^{-7}$ S/m; Temperature: 25 °C

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
The substance is a weak acid.
Attacks many metals forming flammable/explosive hydrogen.
Attacks some forms of plastic, rubber and coatings
Risk of explosion in contact with: ammonium nitrate; nitric acid, hydrogen peroxide; chromium(VI)-oxide; potassium permanganate; sodium peroxide; perchloric acid; phosphorus trichloride
The substance polymerize in contact with: acetic aldehyde;
The substance can react dangerously with: alcohols; strong oxidizing agents; strong bases; strong acids; nitric acid; 2-aminoethanol; ammonium nitrate (heat); bromine pentafluoride; chlorosulphuric acid; dichromate-sulfuric acid; diaminoethane; acetic anhydride; ethylene glycol; potassium-tert. butoxide; oleum.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Finely powdered metals.
Strong oxidising agents.
Strong bases.
Substances specifically listed in section 10.3 as incompatible.
- **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide
- **Additional information:**
Flammable liquid and vapour.
Vapours may form explosive mixtures with air.
Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
Runoff to sewer may create fire or explosion hazard.
This material is not explosive as defined by established regulatory criteria.
Mixable with water.
Hygroscopic.
Volatile.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:
64-19-7 Acetic acid

Oral	LD50	4960 mg/kg (rat)
Inhalative	LC50/4 h	>40 mg/l (rat)

(Contd. on page 9)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 8)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Other information (about experimental toxicology):**
Inhalation of the vapour may cause lung oedema. The effects may be delayed.
The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential.
- **Subacute to chronic toxicity:**
Repeated or prolonged contact with skin may cause dermatitis.
Chronic effects: Skin changes, chronic inflammation of eyes and respiratory tract, erosive tooth damage.
- **Additional toxicological information:**

ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation of its vapour and by ingestion.
Because of its lipid solubility, the substance can penetrate the skin easily and deeply.

Acute effects: Increasing concentration involves increasing corrosive effects on skin and mucous membranes, and exposure to high concentrations causes severe damage to the eyes and the lungs.
In the event of oral intake of high concentrations: chemical burns on the digestive tract, metabolic disorders, blood impairment, cardiovascular reactions, renal damage.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Easily biodegradable
- **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Recommended Hierarchy of Controls:
 - Minimise waste;
 - Reuse if not contaminated;
 - Recycle, if possible; or
 - Safe disposal (if all else fails).

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 9)

Contact waste processors for recycling information.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

- **Uncleaned packaging:**

- **Recommendation:**

Container remains hazardous when empty. Continue to observe all precautions.

Containers, even those that are "empty," may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**

- **ADR, IMDG, IATA** 2789

- **14.2 UN proper shipping name**

- **ADR** 2789 ACETIC ACID SOLUTION
- **IMDG, IATA** ACETIC ACID SOLUTION

- **14.3 Transport hazard class(es)**

- **ADR, IMDG, IATA**



- **Class** 8 Corrosive substances.

- **Label** 8+3

- **14.4 Packing group**

- **ADR, IMDG, IATA** II

- **14.5 Environmental hazards:**

- **Marine pollutant:** No

- **14.6 Special precautions for user**

Warning: Corrosive substances.

- **Hazard identification number (Kemler code):** 83

- **EMS Number:** F-E,S-C

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

- **Transport/Additional information:**

- **ADR**

- **Limited quantities (LQ)** 1ltr

- **Transport category** 2

- **Tunnel restriction code** D/E

- **UN "Model Regulation":** UN2789, ACETIC ACID SOLUTION, 8 (3), II

SECTION 15: Regulatory information

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

No further relevant information available.

(Contd. on page 11)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 10)

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department.
- **Abbreviations and acronyms:**
 - ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 - IMDG: International Maritime Code for Dangerous Goods
 - IATA: International Air Transport Association
 - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - DNEL: Derived No-Effect Level (REACH)
 - PNEC: Predicted No-Effect Concentration (REACH)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - Flam. Liq. 3: Flammable liquids – Category 3
 - Skin Corr. 1A: Skin corrosion/irritation – Category 1A
 - Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Annex: Exposure scenario

- **Sector of Use SU5** Manufacture of textiles, leather, fur
- **Product category**
 - PC1 Adhesives, sealants
 - PC3 Air care products
 - PC4 Anti-Freeze and de-icing products
 - PC7 Base metals and alloys
 - PC8 Biocidal products
 - PC9a Coatings and paints, thinners, paint removers
 - PC9b Fillers, putties, plasters, modelling clay
 - PC9c Finger paints
 - PC12 Fertilisers
 - PC14 Metal surface treatment products
 - PC15 Non-metal-surface treatment products
 - PC18 Ink and toners
 - PC19 Intermediate
 - PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
 - PC21 Laboratory chemicals
 - PC22 Lawn and Garden Preparations, including fertilizers
 - PC23 Leather treatment products
 - PC24 Lubricants, greases, release products
 - PC26 Paper and board treatment products
 - PC27 Plant protection products
 - PC28 Perfumes, fragrances
 - PC29 Pharmaceuticals
 - PC30 Photo-chemicals
 - PC31 Polishes and wax blends
 - PC32 Polymer preparations and compounds
 - PC33 Semiconductors
 - PC34 Textile dyes, and impregnating products
 - PC35 Washing and cleaning products (including solvent based products)
 - PC37 Water treatment chemicals
 - PC38 Welding and soldering products, flux products
 - PC39 Cosmetics, personal care products
 - PC40 Extraction agents

(Contd. on page 12)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.03.2021

Revision: 24.03.2021

Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 11)

PC41: Oil and gas exploration or production products

PC 0: Other: components for liquid dyes mixture

PC 0: Other: solvent

PC 0: Other: Oil and gas field fracturing products

PC 0: Other: solvent for paper dye

· **Article category**

AC5 Fabrics, textiles and apparel

AC6 Leather articles

AC8 Paper articles

· **Description of the activities / processes covered in the Exposure Scenario**

See section 1 of the annex to the Safety Data Sheet.

· **Conditions of use**

· **Duration and frequency** 5 workdays/week.

· **Physical parameters**

· **Physical state** Fluid

· **Concentration of the substance in the mixture** Raw material.

· **Used amount per time or activity** According to directions for use.

· **Other operational conditions**

· **Other operational conditions affecting environmental exposure** High temperatures promote emission.

· **Other operational conditions affecting worker exposure**

Avoid contact with eyes.

Avoid contact with the skin.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

Avoid exposure - obtain special instructions before use.

Do not breathe gas/fume/vapour/aerosol.

Ensure adequate ventilation, especially in closed rooms.

Handle and open container with care.

Keep away from food, drink and animal feedingstuffs.

Keep away from heat.

Keep container tightly closed and in a well-ventilated place.

Keep only in the original container in a cool, well-ventilated place.

Observe first aid measures (for treatment of exposure due to accidents).

Observe instructions for use / storage.

Prohibit storage of food in work areas.

· **Other operational conditions affecting consumer exposure** Keep out of the reach of children.

· **Other operational conditions affecting consumer exposure during the use of the product** Not applicable.

· **Risk management measures**

· **Worker protection**

· **Organisational protective measures**

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

Ensure that activities are executed by specialists or authorised personnel only.

Handling procedures must be well documented.

Keep good industrial hygiene.

Make sure that the workplace is well-lit and organised.

Provide emergency eye wash station and mark its location clearly.

Provide Internal Plant Instruction.

Provide washing facilities in the workplace.

Read first aid measures for treatment prior to contact with the product.

· **Technical protective measures**

Provide explosion-proof electrical equipment.

Ensure that suitable extractors are available on processing machines

Ensure good ventilation/exhaustion at the workplace.

Keep away from heat and direct sunlight.

Keep receptacles tightly sealed.

Open and handle receptacle with care.

Prevent formation of aerosols.

(Contd. on page 13)

Safety data sheet

according to 1907/2006/EC, Article 31

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Trade name: Glacial acetic acid-Analytical Grade

(Contd. of page 12)

Restrict the quantity stored at the work place.

Store in cool, dry place in tightly closed receptacles.

Take note of emission threshold.

Work only in fume cupboard.

· **Personal protective measures**

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

Acid resistant protective clothing

Be sure to clean skin thoroughly after work and before breaks.

Do not eat or drink while working.

Immediately remove all soiled and contaminated clothing

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Measures for consumer protection**

Ensure adequate labelling.

Keep away from living quarters.

Keep locked up and out of the reach of children.

Observe first aid measures (for treatment of exposure due to accidents).

Provide instructions for use.

· **Environmental protection measures**

· **Water**

Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.

· **Soil** Prevent contamination of soil.

· **Disposal measures**

Ensure that waste is collected and contained.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

Disposal must be made according to official regulations.

Liquid product must not be disposed of with household waste. Do not allow to reach sewers / water or soil.

· **Disposal procedures**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Containers, even those that are "empty," may contain residues that can develop flammable vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

· **Waste type** Partially emptied and uncleaned packaging

· **Exposure estimation**

· **Consumer** Not relevant for this Exposure Scenario.

· **Guidance for downstream users** No further relevant information available.