



MATERIAL SAFETY DATA SHEET

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Issue Date:

1- Chemical Product Information and Company Identification.

Product Name: Acetic Acid, AnStan[®] GC Reference standard.
Synonym: Glacial acetic acid.
Product code: BS11178.
CAS Number: 64-19-7.
Company Name: Briti Scientific.
Company Address: Plot No: 78/B/13, SY-79, Phase-VI, Jeedimetla, Hyderabad- 500 055.
Telangana, India.

Section 2- Composition / Information on Ingredients.

CAS No.	Mol.wt.	Chemical Name	Mol.Formula
64-19-7.	60.05 g/mol.	Glacial acetic acid.	CH ₃ COOH

Section 3- Hazards Identification.

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 3), H226

Skin corrosion (Category 1A), H314 Specific target organ toxicity - single exposure (Category 3),
Central nervous system, H336

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

Label elements

Labelling according Regulation (EC) No 1272/2008



Signal word

Danger



Plot No: 78/B/13, SY-79, Phase-VI, Jeedimetla, Hyderabad - 500 055.
Telangana, India.

Hazard statement(s)

- H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

- 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. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370 + P378 In case of fire: Use dry powder or dry sand to extinguish.

Other hazards

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



Section 4- First Aid Measures.

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician



Section 5- Fire Fighting Measures.

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Advice for fire-fighters

Wear self-contained breathing apparatus for fire fighting if necessary

Further information

Use water spray to cool unopened containers.

Section 6- Accidental Release Measures.

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

Reference to other sections

For disposal see section 13.

Section 7- Handling and Storage.

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.



Handle and store under inert gas. Storage class (TRGS 510): Flammable liquids

Section 8- Exposure Control/Personal Protection.

Engineering Controls

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment:

Eye/face protection:

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection:

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection:

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Section 9- Physical and Chemical Properties.

Information on basic physical and chemical properties

a) Appearance Form: Clear Colorless liquid.



- b) Odour: pungent
- c) Odour Threshold: No data available
- d) pH: 2.4 at 60.05 g/l
- e) Melting point/freezing Melting point/range: 16.2 °C - lit. point
- f) Initial boiling point and boiling range : 117 - 118 °C - lit.
- g) Flash point: 40.0 °C - closed cup
- h) Evaporation rate: No data available
- i) Flammability (solid, gas): No data available
- j) Upper/lower Upper explosion limit: 19.9 %(V) flammability or Lower explosion limit: 4 %(V) explosive limits
- k) Vapour pressure: 55.0 mmHg at 50.0 °C 11.4 mmHg at 20.0 °C
- l) Vapour density: No data available
- m) Relative density: 1.049 g/cm³ at 25 °C
- n) Water solubility: completely miscible
- o) Partition coefficient: n- log Pow: -0.17 octanol/water
- p) Auto-ignition: 485.0 °C temperature
- q) Decomposition temperature: No data available
- r) Viscosity: No data available
- s) Explosive properties: No data available
- t) Oxidizing properties: No data available

Other safety information

Surface tension 28.8 mN/m at 10.0 °C

Section 10- Stability and Reactivity.

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols, Nitric acid

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5





Section 11- Toxicological Information.

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 3,310 mg/kg(Acetic acid)

LC50 Inhalation - Mouse - 1 h - 5620 ppm(Acetic acid)

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye: Conjunctive irritation.

Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye: Other. Blood: Other changes.

LC50 Inhalation - Rat - 4 h - 11.4 mg/l(Acetic acid)

LD50 Dermal - Rabbit – 1.112 mg/kg(Acetic acid)

Skin corrosion/irritation

Skin - Rabbit(Acetic acid) Result: Causes severe burns.

Serious eye damage/eye irritation

Eyes - Rabbit(Acetic acid) Result: Corrosive to eyes

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Additional Information

RTECS: AF1225000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Ingestion or inhalation of concentrated acetic acid causes damage to tissues of the respiratory and digestive tracts. Symptoms include: hematemesis, bloody diarrhoea, edema and/or perforation of the oesophagus and pylorus, pancreatitis, haematuria, anuria, uraemia, albuminuria, haemolysis, convulsions, bronchitis, pulmonary edema, pneumonia, cardiovascular collapse, shock, and death. Direct contact or exposure to high concentrations of vapour with skin or eyes can cause: erythema, blisters, tissue destruction with slow healing, skin blackening, hyperkeratosis, fissures, corneal erosion, pacification, iritic, conjunctivitis, and possible blindness., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Acetic acid)

Section 12- Ecological Information.

Toxicity

Toxicity to fish semi-static test LC50 - Oncorhynchus my kiss (rainbow trout) - > 1.000 mg/l - 96 h(Acetic acid) (OECD Test Guideline 203)



Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - > 300.82 mg/l - 48 h(Acetic acid)

Persistence and degradability

Biodegradability aerobic - Exposure time 30 d(Acetic acid) Result: 99 % - Readily biodegradable
Remarks: Expected to be biodegradable.

Biochemical Oxygen Demand (BOD) 880 mg/g(Acetic acid)

Results of PBT and vPvB assessment

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

Section 13- Disposal Considerations.

Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14- Transport Information.

UN number

ADR/RID: 2789 IMDG: 2789 IATA: 2789

UN proper shipping name

ADR/RID: ACETIC ACID, GLACIAL

IMDG: ACETIC ACID, GLACIAL

IATA: ACETIC ACID, GLACIAL

Transport hazard class (es)

ADR/RID: 8 (3) IMDG: 8 (3) IATA: 8 (3)

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no



Section 15- Regulatory Information.

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Chemical Safety Assessment

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

Section 16- Other Information.

Briti Scientific provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

