

MATERIAL SAFETY DATA SHEET (MSDS)



PRODUCT NAME

CAS No.:

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

1.1. Product identifier

Product form	:	Substance
Product name	:	ACETIC ACID
Type of product	:	ACID
Product Grades (Applicable)	:	HPLC , AR,ACS, ELECTRONIC
Product Code	:	A0001H (Pack size(s):- 1LT, 2.5LT) A0001A (Pack size(s):- 2.5LT, 0.5LT, 25LT) A0001E (Pack size(s):- 2.5LT, 0.5LT)
CAS No	:	64-19-7
Formula	:	C2H4O2

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

1.2.1. Relevant identified uses	:	Industrial;For professional use only : Laboratory chemicals : Manufacture of substances Solvents
1.2.2. Uses advised against	:	No additional information available

1.3. Details of the supplier of the safety data sheet

RYZE CHEMIE
W-68,Mankivli MIDC
Badlapur (E), Thane,
Maharashtra-421503
www.ryzechemie.com

1.4. Emergency Telephone Number

+91- 99-3006-04-04 :

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 4	H312

Acute toxicity (inhal.), Category 4 H332
Serious eye damage/eye irritation,
Category 2 H319

Full text of classification categories and H statements : see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

F; R11

Xi; R36

R67



Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label Elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)	:		
		GHS02	GHS07
Signal word (CLP)	:	Danger	
Hazard statements (CLP)	:	H226 - Flammable liquid and vapour. H314 - Causes severe skin burns and eye damage.	
Precautionary statements (CLP)	:	P280 - Wear protective clothing, eye protection, face protection, protective gloves. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a doctor.	

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : ACETIC ACID GLACIAL FOR HPLC
CAS No : 64-19-7
EC-No. : 200-580-7
EC Index-No. : 607-002-00-6

3.2. Mixture

Not applicable

SECTION 4: : First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- First-aid measures after skin contact : Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

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

- Symptoms/effects after inhalation : Causes severe skin burns and eye damage.
- Symptoms/effects after skin contact : Burns.
- Symptoms/effects after eye contact : Causes serious eye irritation. Serious damage to eyes.
- Symptoms/effects after ingestion : Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Water spray. Dry powder. Foam. Carbon dioxide.
- Unsuitable extinguishing media : Do not use a heavy water stream

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable liquid and vapour
- Explosion hazard : May form flammable/explosive vapour-air mixture.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe. Avoid breathing dust, fume, gas, mist, spray, vapours.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective

equipment. Use personal protective equipment as required
For further information refer to section 8:
"Exposure controls/personal protection".

Emergency procedures : Stop release.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations. Ground/bond container and receiving equipment.

Storage conditions : Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Incompatible materials : Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

Hand protection	:	Protective gloves
Eye protection	:	Chemical goggles or safety glasses
Skin and body protection	:	Wear suitable protective clothing
Respiratory protection	:	Wear appropriate mask

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Clear liquid.
Molecular mass	:	60.05 g/mol
Colour	:	Colourless.
Odour	:	strong, vinegar-like.
Odour threshold	:	No data available
pH	:	2.4 (1.0 M solution)
pH solution concentration	:	NA
Relative evaporation rate	:	0.97
Melting point	:	16.2 °C
Freezing point	:	No data available
Boiling point	:	117 – 118 °C
Flash point	:	2 °C
Auto-ignition temperature	:	485 °C
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Flammable liquid and vapour, Not applicable
Vapour pressure	:	15.2 hPa at 20°C
Relative vapour density at 20 °C	:	2.1
Relative density	:	No data available
Density	:	1.049 g/cm ³
Relative gas density	:	NA
Solubility	:	Water: Miscible in water
Partition coefficient n-octanol/water (Log Pow)	:	-0.17
Viscosity, kinematic	:	1.163 mm ² /s
Viscosity, dynamic	:	1.22 cP

Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : 0.04 – 0.199 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours. Flammable liquid and vapour

10.2. Chemical Stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks. Avoid contact with hot surfaces.
No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases. Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified
Skin corrosion/irritation : Causes severe skin burns.
pH: 2.4 (1.0 M solution)
Serious eye damage/irritation : Assumed to cause serious eye damage
pH: 2.4 (1.0 M solution)
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Potential adverse human health effects and symptoms : NA

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	:	Before neutralisation, the product may represent a danger to aquatic organisms.
Hazardous to the aquatic environment, short-term(acute)	:	Not classified
Hazardous to the aquatic environment, long-term (chronic)	:	Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

ACETIC ACID GLACIAL FOR HPLC (64-19-7)	
Partition coefficient n-octanol/water (Log Pow)	: 0.17

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	:	Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Additional information	:	Handle empty containers with care because residual vapours are flammable. Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number

UN-No. (ADR)	:	UN 2789
UN-No. (IMDG)	:	UN 2789
UN-No.(IATA)	:	UN 2789
UN-No.(ADN)	:	UN 2789
UN-No. (RID)	:	UN 2789

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	ACETIC ACID, GLACIAL
Proper Shipping Name (IMDG)	:	ACETIC ACID, GLACIAL
Proper Shipping Name (IATA)	:	acetic acid,glacial
Proper Shipping Name (ADN)	:	ACETIC ACID, GLACIAL
Proper Shipping Name (RID)	:	ACETIC ACID, GLACIAL
Transport document description (ADR)	:	UN 2789 ACETIC ACID, GLACIAL, 8 (3), II, (D/E)

Transport document description (IMDG)	:	UN 2789 ACETIC ACID, GLACIAL, 8 (3), II
Transport document description (IATA)	:	UN 2789 Acetic acid, glacial, 8 (3), II
Transport document description (ADN)	:	UN 2789 ACETIC ACID, GLACIAL, 8 (3), II
Transport document description (RID)	:	UN 2789 ACETIC ACID, GLACIAL, 8 (3), II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	:	8 (3)
Danger labels (ADR)	:	8, 3



IMDG

Transport hazard class(es) (IMDG)	:	8 (3)
Danger labels (IMDG)	:	8, 3



IATA

Transport hazard class(es) (IATA)	:	8 (3)
Hazard labels (IATA)	:	8, 3



ADN

Transport hazard class(es) (ADN)	:	8 (3)
Hazard labels (ADN)	:	8, 3



RID

Transport hazard class(es) (RID)	:	8 (3)
Hazard labels (RID)	:	8, 3



14.4. Packing group

Packing group (ADR)	:	II
Packing group (IMDG)	:	II
Packing group (IATA)	:	II
Packing group (ADN)	:	II
Packing group (RID)	:	II

14.5. Environmental hazards

Dangerous for the environment	:	No
Marine pollutant	:	No
Other information	:	No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	CF1
Limited quantities (ADR)	:	1L
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001, IBC02
Mixed packing provisions (ADR)	:	MP15
Portable tank and bulk container instructions (ADR)	:	T7
Portable tank and bulk container special provisions (ADR)	:	TP2

Tank code (ADR)	:	L4BN		
Vehicle for tank carriage	:	FL		
Transport category (ADR)	:	2		
Special provisions for carriage - Operation (ADR)	:	S2		
Hazard identification number (Kemler No.)	:	83		
Orange plates	:			
Tunnel restriction code (ADR)	:	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">33</td></tr><tr><td style="text-align: center;">1648</td></tr></table>	33	1648
33				
1648				
EAC code	:	•2P		
- Transport by sea				
Limited quantities (IMDG)	:	1L		
Excepted quantities (IMDG)	:	E2		
Packing instructions (IMDG)	:	P001		
IBC packing instructions (IMDG)	:	IBC02		
Tank instructions (IMDG)	:	T7		
Tank special provisions (IMDG)	:	TP2		
EmS-No. (Fire)	:	F-E		
EmS-No. (Spillage)	:	S-C		
Stowage category (IMDG)	:	A		
Flash point (IMDG)	:	2°C c.c.		
Properties and observations (IMDG)	:	Colourless flammable liquid with a pungent odour. When pure, crystallizes below 16°C. Flashpoint: 40°C c.c. Explosive limits: 4% to 17% Miscible with water Corrosive to lead and most other metals.		
MFAG-No	:	132		
- Air transport				
PCA Excepted quantities (IATA)	:	E2		
PCA Limited quantities (IATA)	:	Y840		
PCA limited quantity max net quantity (IATA)	:	0.5L		
PCA packing instructions (IATA)	:	851		
PCA max net quantity (IATA)	:	1L		
CAO packing instructions (IATA)	:	855		
CAO max net quantity (IATA)	:	30L		
ERG code (IATA)	:	8F		
- Inland waterway transport				
Classification code (ADN)	:	CF1		
Limited quantities (ADN)	:	1L		
Excepted quantities (ADN)	:	E2		
Carriage permitted (ADN)	:	T		
Equipment required (ADN)	:	PP, EP, EX, A		
Ventilation (ADN)	:	VEO1		
Number of blue cones/lights (ADN)	:	1		
- Rail transport				
Classification code (RID)	:	CF1		
Limited quantities (RID)	:	1L		
Excepted quantities (RID)	:	E2		
Packing instructions (RID)	:	P001, IBC02		
Mixed packing provisions (RID)	:	MP15		
Portable tank and bulk container instructions (RID)	:	T7		

Portable tank and bulk container special provisions (RID) : TP2
 Tank codes for RID tanks (RID) : L4BN
 Transport category (RID) : 2
 Colis express (express parcels) (RID) : CE6
 Hazard identification number (RID) : 83

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(a)	ACETONITRILE FOR HPLC & UV SPECTROSCOPY
3(b)	ACETONITRILE FOR HPLC & UV SPECTROSCOPY
40.	ACETONITRILE FOR HPLC & UV SPECTROSCOPY

REACH Annex XIV (Authorisation List)

ACETIC ACID GLACIAL FOR HPLC is not on the REACH Annex XIV List

REACH Candidate List (SVHC)

ACETIC ACID GLACIAL FOR HPLC is not on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

ACETIC ACID GLACIAL FOR HPLC is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

ACETIC ACID GLACIAL FOR HPLC is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

ACETIC ACID GLACIAL is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list(Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water

(Classification according to AwSV; ID No. 93).

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

Denmark

Class for fire hazard : Class II-1

Store unit : 5 liter

Classification remarks : R10 ; Emergency management guidelines for the storage of flammable liquids must be followed.

Danish National Regulations : : Young people below the age of 18 years are not allowed to use the product

Switzerland

Storage class (LK) : LK 3 - Flammable liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H319	Causes serious eye irritation.
H332	Harmful if inhaled

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.