

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 6/17/2025 Version: 1.0

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

1.1. Product identifier

Product form : Substance

: ACETIC ACID GC REFERENCE STANDARD Trade name

IUPAC name : Ethanoic acid EC Index-No. : 607-002-00-6 EC-No. : 200-580-7 CAS-No. : 64-19-7 Product code : GS005

Type of product : Carboxylic acids

Formula : C2H4O2

Chemical structure

Synonyms : Methanecarboxylic acid

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

Relevant identified uses

Use of the substance/mixture : Laboratory chemicals

Reagent

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.

107 Wode House Road, Jehangir Villa, Colaba

400005 Mumbai

INDIA

T +91 22 6663 6663. F +91 22 6663 6699

info@lobachemie.com, www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

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 Skin corrosion/irritation, Category 1, Sub-Category 1A H314

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Causes severe skin burns and eye damage.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements

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

Hazard pictograms (CLP)





GHS02

GHS05

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 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 .

P310 - Immediately call a POISON CENTER or doctor.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type Mono-constituent

Name	Product identifier	%
ACETIC ACID	CAS-No.: 64-19-7 EC-No.: 200-580-7 EC Index-No.: 607-002-00-6	100

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

Remove person to fresh air and keep comfortable for breathing. First-aid measures after inhalation

First-aid measures after skin contact Rinse skin with water/shower. Take off immediately all contaminated clothing. 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. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

Self protection of the first-aider : First aid workers will be equipped with suitable personal protective equipment.

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

Symptoms/effects after inhalation : None under normal conditions.

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

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

Treat symptomatically.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : 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 : No direct explosion hazard. Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper

protective equipment, including respiratory protection.

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 : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.

Absorb spillage to prevent material damage.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin

and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment

6.3. Methods and material for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to

prevent migration and entry into sewers or streams. Stop leak without risks if possible.

Methods for cleaning up : Take up liquid spill into absorbent material. 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 Precautions for safe handling

- : Not expected to present a significant hazard under anticipated conditions of normal use.
- : Ensure good ventilation of the work station. 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.

6/17/2025 (Issue date) EN (English) 3/13

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hygiene measures : 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 : Ground/bond container and receiving equipment.

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

Packaging materials : Store always product in container of same material as original container.

Switzerland

Storage class (LK) : LK 3 - Flammable liquids

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Personal protective equipment symbol(s):







Eye and face protection

Eye protection:

Chemical goggles or face shield

Skin protection

Skin and body protection:

Wear a mask

Hand protection:

Protective gloves

Respiratory protection

Respiratory protection:

Wear appropriate mask

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Colourless.
Appearance : Clear liquid.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Molecular mass : 60.05 g/mol
Odour
Odour : strong, vinegar-like.
Odour threshold : Not available
Melting point : 16.2 °C
Boiling point : 117 – 118 °C

Flammability : Flammable liquid and vapour.

Lower explosion limit : 4 vol %
Upper explosion limit : 19.9 vol %
Flash point : 40 °C
Auto-ignition temperature : 485 °C
Decomposition temperature : Not available
pH : 2.5 (1.0 M solution)
Viscosity, kinematic : 1.163 mm²/s

Solubility : Water: Miscible in water

: 1.22 cP

Partition coefficient n-octanol/water (Log Kow) : Not available Partition coefficient n-octanol/water (Log Pow) : -0.17

Vapour pressure : 15.2 hPa at 20°C

Vapour pressure at 50°C : Not available

Density : 1.049 g/cm³

Relative density : Not available

Relative vapour density at 20°C : 2.07 (Air = 1)

Particle characteristics : Not applicable

9.2. Other information

Viscosity, dynamic

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Skin corrosion/irritation : Causes severe skin burns. pH: 2.5 (1.0 M solution)

6/17/2025 (Issue date) EN (English) 5/13

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Serious eye damage/irritation : Assumed to cause serious eye damage

pH: 2.5 (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

ACETIC ACID GC REFERENCE STANDARD (64-19-7)

Viscosity, kinematic 1.163 mm²/s

11.2. Information on other hazards

No additional information available

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

ACETIC ACID GC REFERENCE STANDARD (64-19-7)

Persistence and degradability Rapidly degradable

12.3. Bioaccumulative potential

ACETIC ACID GC REFERENCE STANDARD (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. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations. Product/Packaging disposal recommendations : Disposal must be done according to official regulations.

6/17/2025 (Issue date) EN (English) 6/13

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Additional information : Flammable vapours may accumulate in the container. Do not re-use empty containers.

SECTION 14: Transport information

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

14.1. UN number or ID 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) (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)
Danger labels (IATA) : 8,3



ADN

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



Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

RID

Transport hazard class(es) (RID) : 8 (3)
Danger 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
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-C

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : CF1
Limited quantities (ADR) : 11
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 : TP2

(ADR)

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

83 2789

Tunnel restriction code (ADR) : D/E
EAC code : •2P
APP code : A(fl)

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 : Stowage category (IMDG) : Α

Segregation (IMDG) : SGG1, SG36, SG49

Properties and observations (IMDG) : Colourless flammable liquid with a pungent odour. When pure, crystallizes below 16°C.

Flashpoint: 40°C c.c. (pure product) 60°C c.c. (80% solution). Explosive limits: 4% to 17%. Miscible with water. Corrosive to lead and most other metals. Corrosive to skin, eyes and

mucous membranes.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Air transport

PCA Excepted quantities (IATA) : E2 : Y840 PCA Limited quantities (IATA) 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) : 1 L
Excepted quantities (ADN) : E2
Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EP, EX, A
Ventilation (ADN) : VE01

Ventilation (ADN) : VE0
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 : TP2

(RID)

Tank codes for RID tanks (RID) : L4BN
Transport category (RID) : 2
Colis express (express parcels) (RID) : CE6
Hazard identification number (RID) : 83

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(a)	ACETIC ACID GC REFERENCE STANDARD
3(b)	ACETIC ACID GC REFERENCE STANDARD
40.	ACETIC ACID GC REFERENCE STANDARD

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

Council Regulation (EC) for the control of dual-use items

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

Explosives Precursors Regulation (2019/1148)

Not listed on the Explosives Precursors list (EU)

Drug Precursors Regulation (273/2004)

Not listed on the Drug Precursors list (EU)

National regulations

Austria

Ordinance on Flammable Liquids (VbF) : Hazard category 3: Flammable (flash point 23 - 60 °C. Excluding gas oils and petroleum).

Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG).

Observe restrictions according Act on the Protection of Young People in Employment

(JArbSchG).

: WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 93). Water hazard class (WGK)

Major Accidents Ordinance (12. BlmSchV) : Is not listed in the Major Accidents Ordinance (12. BlmSchV)

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 -: The substance is not listed

Vruchtbaarheid

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 <H226;H314>; 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

6/17/2025 (Issue date) 10/13 EN (English)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Poland

Polish National Regulations

: Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).

Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).

The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).

Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).

Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).

Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).

The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488)

Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended). Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).

ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)

Spain

Royal Decree 665/1997

: Is not subject to the Royal Decree 665/1997

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ACGIH	American Conference of Government Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acr	Abbreviations and acronyms:		
ED	Endocrine disruptor		
EN	European Standard		
EWC	European waste catalogue		
IARC	International Agency for Research on Cancer		
IATA	International Air Transport Association		
IMDG	International Maritime Dangerous Goods		
LC50	Median lethal concentration		
LD50	Median lethal dose		
LOAEL	Lowest Observed Adverse Effect Level		
Log Kow	Partition coefficient n-octanol/water (Log Kow)		
Log Pow	Partition coefficient n-octanol/water (Log Pow)		
MAK	maximum workplace concentration		
NOAEC	No-Observed Adverse Effect Concentration		
NOAEL	No-Observed Adverse Effect Level		
NOEC	No-Observed Effect Concentration		
N.O.S.	Not Otherwise Specified		
OECD	Organisation for Economic Co-operation and Development		
OEL	Occupational Exposure Limit		
OSHA	Occupational Safety & Health Administration		
PBT	Persistent Bioaccumulative Toxic		
PNEC	Predicted No-Effect Concentration		
PPE	Personal protection equipment		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
SDS	Safety Data Sheet		
STP	Sewage treatment plant		
TF	Technical function		
ThOD	Theoretical oxygen demand (ThOD)		
TLM	Median Tolerance Limit		
TWA	Time Weighted Average		
VOC	Volatile Organic Compounds		
vPvB	Very Persistent and Very Bioaccumulative		
UFI	Unique Formula Identifier		

Full text of H- and EUH-statements:	
Flam. Liq. 3	Flammable liquids, Category 3
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.

Safety Data Sheet (SDS), EU

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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.