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|-----------------------------|--|------------------------------|
| Acetic Acid | | Pricing > |
| Linear Formula | CH ₃ COOH | |
| Pubchem CID | 176 | |
| MDL Number | MFCD00036152 | |
| EC No. | 200-580-7 | |
| IUPAC Name | acetic acid | |
| Beilstein/Reaxys No. | 506007 | |
| SMILES | CC(=O)O | |
| Inchl Identifier | InChI=1S/C2H4O2/c1-2(3)4/h1H3,(H,3,4) | |
| Inchl Key | QTBSBXVTEAMEQO-UHFFFAOYSA-N | |
| Signal Word | Danger | |
| Hazard Statements | H226-H314 | |
| Hazard Codes | C | |
| Risk Codes | 10-35 | |
| Safety Statements | 23-26-45 | |
| RTECS Number | AF1225000 | |
| Transport Information | UN 2789 8/PG 2 | |
| WGK Germany | 1 | |
| GHS Pictograms | GHS05 Corrosive  GHS02 Flame  | |

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SAFETY DATA SHEET

Date Accessed: 05/09/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American

Elements product codes for CAS #64-19-7

Relevant identified uses of the substance:

Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:

Domestic, North America +1 800-424-9300

International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No
1272/2008

GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.

GHS05 Corrosion

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

Hazards not otherwise classified

No data available

Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



GHS02

GHS05

Signal word

Danger

Hazard statements

H226 Flammable liquid and vapor.

H314 Causes severe skin burns and eye damage.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot
surfaces. - No smoking.

P260 Do not breathe

dust/fume/gas/mist/vapors/spray.

P303+P361+P353 IF ON SKIN (or hair):

Remove/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.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification

B3 - Combustible liquid

D2B - Toxic material causing other toxic effects

E - Corrosive material

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH

FIRE

REACTIVITY

3

2

1

Health (acute effects) = 3

Flammability = 2

Physical Hazard = 1

Other hazards

Results of PBT and vPvB assessment

PBT:

N/A

vPvB:

N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

CAS No. / Substance Name:

64-19-7 Acetic acid

Identification number(s):

EC number:

200-580-7

Index number:

607-002-00-6

SECTION 4. FIRST AID MEASURES

Description of first aid measures

General information

Immediately remove any clothing soiled by the product.

If inhaled:

Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

In case of skin contact:
Immediately wash with soap and water; rinse thoroughly.
Seek immediate medical advice.
In case of eye contact:
Rinse opened eye for several minutes under running water. Consult a physician.
If swallowed:
Seek medical treatment.
Information for doctor
Most important symptoms and effects, both acute and delayed
Causes severe skin burns.
Causes serious eye damage.
Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing agents
Carbon dioxide, extinguishing powder or water spray.
Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
Environmental precautions:
Do not allow material to be released to the environment without official permits.
Methods and materials for containment and cleanup:
Keep away from ignition sources.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Prevention of secondary hazards:

Keep away from ignition sources.

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

Handling

Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Prevent formation of aerosols.

Information about protection against explosions and fires:

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Store away from strong bases.

Store away from amines.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Specific end use(s)

No data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring

at the workplace:

64-19-7 Acetic acid (100.0%)

PEL (USA) Long-term value: 25 mg/m³, 10 ppm

REL (USA) Short-term value: 37 mg/m³, 15 ppm

Long-term value: 25 mg/m³, 10 ppm

TLV (USA) Short-term value: 37 mg/m³, 15 ppm

Long-term value: 25 mg/m³, 10 ppm

EL (Canada) Short-term value: 15 ppm

Long-term value: 10 ppm

EV (Canada) Short-term value: 37 mg/m³, 15 ppm

Long-term value: 25 mg/m³, 10 ppm

Additional information:

No data

Exposure controls

Personal protective equipment

Follow typical protective and hygienic practices for handling chemicals.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands:

Impervious gloves

Inspect gloves prior to use.

Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.

Penetration time of glove material (in minutes)

No data available

Eye protection:

Tightly sealed goggles

Full face protection

Body protection:

Protective work clothing

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Form: Liquid

Color: Colorless

Odor: Pungent

Odor threshold: No data available.

pH (10 g/l) at 20 °C (68 °F): 2.5
Melting point/Melting range: 16.6 °C (62 °F)
Boiling point/Boiling range: 118.1 °C (245 °F)
Sublimation temperature / start: No data available
Flash point: 40 °C (104 °F)
Flammability (solid, gas)
N/A
Ignition temperature: 485 °C (905 °F)
Decomposition temperature: No data available
Autoignition: No data available.
Danger of explosion: Product is not explosive.
However, formation of explosive air/vapor mixtures is possible.
Explosion limits:
Lower: 4 Vol %
Upper: 17 Vol %
Vapor pressure at 20 °C (68 °F): 16 hPa (12 mm Hg)
Density at 20 °C (68 °F): 1.049 g/cm³ (8.754 lbs/gal)
Relative density
No data available.
Vapor density
No data available.
Evaporation rate
No data available.
Solubility in Water (H₂O): Fully miscible
Partition coefficient (n-octanol/water): No data available.
Viscosity:
dynamic at 25 °C (77 °F): 1.53 mPas
Kinematic: No data available.
Other information
No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity
No data available
Chemical stability
Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored according to specifications.
Possibility of hazardous reactions
No dangerous reactions known
Conditions to avoid
No data available
Incompatible materials:
Oxidizing agents
Bases
Amines
Hazardous decomposition products:
Carbon monoxide and carbon dioxide

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

LD/LC50 values that are relevant for classification:

Oral LD50 3310 mg/kg (rat)

Dermal LD50 1060 mg/kg (rabbit)

Inhalative LC50/1H 5620 ppm/1H (mouse)

Skin irritation or corrosion:

Causes severe skin burns.

Eye irritation or corrosion:

Causes serious eye damage.

Sensitization:

No sensitizing effects known.

Germ cell mutagenicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance.

Carcinogenicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Reproductive toxicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.

Specific target organ system toxicity - repeated exposure:

No effects known.

Specific target organ system toxicity - single exposure:

No effects known.

Aspiration hazard:

No effects known.

Subacute to chronic toxicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Carcinogenic categories

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Additional ecological information:

Do not allow material to be released to the environment without official permits.

Do not allow undiluted product or large quantities to reach groundwater, water courses, or sewage systems.

Avoid transfer into the environment.

Results of PBT and vPvB assessment

PBT:

N/A

vPvB:

N/A

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation

Consult official regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations.

Recommended cleansing agent:

Water, if necessary with cleansing agents.

SECTION 14. TRANSPORT INFORMATION

UN-Number

DOT, IMDG, IATA

UN2789

UN proper shipping name

DOT

Acetic acid, glacial

IMDG, IATA

ACETIC ACID, GLACIAL
Transport hazard class(es)
DOT
Class
8 Corrosive substances.
Label
8
Class
8 (CF1) Corrosive substances
Label
8
IMDG, IATA
Class
8 Corrosive substances.
Label
8
Packing group
DOT, IMDG, IATA
II
Environmental hazards:
N/A
Special precautions for user
Warning: Corrosive substances
EMS Number: F-E,S-C
Segregation groups
Acids
Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code
N/A
Transport/Additional information:
DOT
Marine Pollutant (DOT):
No
Item:
UN "Model Regulation":
UN2789, Acetic acid, glacial, 8, II

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental
regulations/legislation specific for the substance or
mixture
National regulations
All components of this product are listed in the U.S.
Environmental Protection Agency Toxic Substances
Control Act Chemical substance Inventory.
All components of this product are listed on the
Canadian Domestic Substances List (DSL).
SARA Section 313 (specific toxic chemical listings)
64-19-7 Acetic acid
California Proposition 65
Prop 65 - Chemicals known to cause cancer

Substance is not listed.
Prop 65 - Developmental toxicity
Substance is not listed.
Prop 65 - Developmental toxicity, female
Substance is not listed.
Prop 65 - Developmental toxicity, male
Substance is not listed.
Information about limitation of use:
For use only by technically qualified individuals.
Other regulations, limitations and prohibitive
regulations
Substance of Very High Concern (SVHC) according to
the REACH Regulations (EC) No. 1907/2006.
Substance is not listed.
The conditions of restrictions according to Article 67
and Annex XVII of the Regulation (EC) No 1907/2006
(REACH) for the manufacturing, placing on the market
and use must be observed.
Substance is not listed.
Annex XIV of the REACH Regulations (requiring
Authorisation for use)
Substance is not listed
Chemical safety assessment:
A Chemical Safety Assessment has not been carried
out.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
