# Safety Data Sheet

GLACIAL ACETIC ACID

## SECTION 1: Identification

**1.1 GHS Product identifier**

| | |
|---|---|
| Product name | Glacial Acetic Acid |
| Brand | Caseway |
| Substance name | Acetic acid |
| EC no. | 200-580-7 |
| CAS no. | 64-19-7 |
| Index no. | 607-002-00-6 |

**1.2 Other means of identification**

Synonym(s): acetic acid; glacial acetic acid (pure compound)
SDS Number: CIP-029
UN/ID No: UN2789

**1.3 Recommended use of the chemical and restrictions on use**

Uses: Laboratory chemicals, Synthesis of substances
Restrictions on Use: None known.

**1.4 Supplier's details**

| | |
|---|---|
| Name | Caseway Industrial Products, Inc. |
| Address | 3487 Highland Drive<br>Bay City MI 48706<br>United States |
| Telephone | 19893919992 |
| Fax | 19893919994 |
| Email | support@casewayproducts.com |

**1.5 Emergency phone number**

INFOTRAC (Contract: 106140)
North America: 1-800-535-5053
International: 1-352-323-3500

## SECTION 2: Hazard identification

**2.1 Classification of the substance or mixture**

**GHS classification in accordance with: OSHA (29 CFR 1910.1200)**

- Skin corrosion/irritation, Cat. 1A
- Flammable liquids, Cat. 3
- Acute toxicity, dermal, Cat. 4
- Acute toxicity, inhalation, Cat. 4
- Eye damage/irritation, Cat. 1

**2.2 GHS label elements, including precautionary statements**

**Pictogram**

**Signal word** **Danger**

**Hazard statement(s)**

| | |
|---|---|
| H226 | Flammable liquid and vapor |
| H312 | Harmful in contact with skin |
| H314 | Causes severe skin burns and eye damage |
| H318 | Causes serious eye damage |
| H332 | Harmful if inhaled |

**Precautionary statement(s)**

**Prevention**

| | |
|---|---|
| P210 | Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking. |
| P233 | Keep container tightly closed. |
| P240 | Ground/bond container and receiving equipment. |
| P241 | Use explosion-proof electrical/ ventilating/ lighting/ equipment. |
| P242 | Use only non-sparking tools. |
| P243 | Take precautionary measures against static discharge. |
| P260 | Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. |
| P264 | Wash skin thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |

**Response**

| | |
|---|---|
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P363 | Wash contaminated clothing before reuse. |
| P370+P378 | In case of fire: Use water fog, alcohol resistant foam, dry chemical powder, carbon dioxide ($CO_2$) to extinguish. |

**Storage**

| | |
|---|---|
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P405 | Store locked up. |

**Disposal**

| | |
|---|---|
| P501 | Dispose of contents/container to an approved waste disposal plant. |

### 2.3 Other hazards which do not result in classification

None known.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

| Name | CAS No. | EC No. | Index No. | Concentration (weight) |
|---|---|---|---|---|
| Acetic acid | 64-19-7 | 200-580-7 | 607-002-00-6 | >99.9 % |

Other names / synonyms: Glacial acetic acid (pure compound); acetic acid

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200) and U.S. State equivalents.

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

| | |
|---|---|
| General advice | Consult a physician. Show this safety data sheet to the doctor/physician in attendance. Move out of dangerous area. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |
| If inhaled | IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician, and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Respirator Recommendation. |
| In case of skin contact | IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. IMMEDIATELY call a hospital or poison control center even if no symptoms (such as redness or irritation) develop. IMMEDIATELY transport the victim to a hospital for treatment after washing the affected areas. |
| In case of eye contact | First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop. |
| If swallowed | DO NOT INDUCE VOMITING. Corrosive chemicals will destroy the membranes of the mouth, throat, and esophagus and, in addition, have a high risk of being aspirated into the victim's lungs during vomiting which increases the medical problems. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. IMMEDIATELY transport the victim to a hospital. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. Transport the victim IMMEDIATELY to a hospital. |
| Personal protective equipment for first-aid responders | Avoid contact with skin. Wear suitable gloves, face, and body protection. Wear suitable respiratory equipment when necessary. |

### 4.2 Most important symptoms/effects, acute and delayed

Irritation, burning pain, and severe corrosive skin damage. Cough, Nausea, Vomiting, bronchitis, gastric spasms, Shortness of breath, shock, Circulatory collapse, Pneumonia
Risk of corneal clouding.
Stinging, tearing, swelling, and blurred vision. Risk of blindness! Serious eye damage.

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to the affected area. Call an ambulance. Continue flushing during transportation to the hospital.

Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to the affected area. Call an ambulance. Continue flushing during transportation to the hospital.

## SECTION 5: Fire-fighting measures

**5.1 Suitable extinguishing media**
Water fog, Alcohol resistant foam, Dry chemical powder, Carbon dioxide (CO2)

Unsuitable Extinguishing Media: Water jet. (May spread fire)

**5.2 Specific hazards arising from the chemical**
Vapors may form explosive mixtures with air. Vapors may travel considerable distances to a source of ignition and flash back. During fire, gases hazardous to health may form.

**5.3 Special protective actions for fire-fighters**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Do not breath vapors/fumes. Move containers from fire area if you can do so without risk. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment, and emergency procedures**
Keep unnecessary personnel away. Keep people from and upwind of spill/leak. Eliminate all sources of ignition (non smoking, flares, sparks, flames, and electrical equipment). Wear appropriate protective equipment and clothing during clean-up. Do not breath mist/vapors. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

**6.2 Environmental precautions**
Avoid discharge into drains, water courses or onto the ground.

**6.3 Methods and materials for containment and cleaning up**
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand, or earth to soak up the product and transfer to containers for later disposal. Wash any surfaces you may have contaminated with a soap and water solution.

Small Spills: If you should spill this chemical, use absorbent paper to pick up all liquid spill material. Seal the absorbent paper, as well as any of your clothing which may be contaminated, in a vapor-tight plastic bag for eventual disposal. Wash any surfaces you may have contaminated with a soap and water solution. Do not reenter the contaminated area until the Safety Officer (or other responsible person) has verified that the area has been properly cleaned.

Never return spills to original containers for reuse.

**Reference to other sections**
Personal Protection: Section 8.
Waste Disposal: Section 13.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling**
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store, or open near electrical equipment, open flame, sources of heat, or sources of ignition. Protect material from direct sunlight. Use only with adequate ventilation. Do not breathe fumes, vapors, mist, or spray. Do not get in eyes, mouth, or on skin. Avoid prolonged exposure. Wear OSHA standard chemical resistant goggles, face shield, gloves, apron, & footwear. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment when handling this product must be grounded. Use only non-sparking tools and explosion-proof equipment. Wash hands thoroughly after handling.

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

Store locked up. Store in a cool, dry place away from electrical equipment, direct sunlight, heat, sparks, open flames, and any sources of ignition. Prevent electrostatic charge build-up by using common grounding/bonding techniques. Store in a tightly closed container. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10. of the SDS).

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**1. Acetic acid (CAS: 64-19-7 EC: 200-580-7)**
PEL-TWA (Inhalation): 10 ppm (25 mg/m3); USA (OSHA)

REL-TWA (Inhalation): 10 ppm, (25 mg/m3); USA (NIOSH)
REL-STEL (Inhalation): 15 ppm, (37 mg/m3); USA (NIOSH)
IDLH (Inhalation): 50 ppm; USA (NIOSH)

TLV®-TWA (Inhalation): 10 ppm; USA (ACGIH) [2003]
TLV®-STEL (Inhalation): 15 ppm; USA (ACGIH) [2003]

PEL-TWA (Inhalation): 10 ppm, (25 mg/m3); USA (Cal/OSHA)
PEL-STEL (Inhalation): 15 ppm, (37 mg/m3); USA (Cal/OSHA)
PEL-C (Inhalation): 40 ppm; USA (Cal/OSHA)
California permissible exposure limits for chemical contaminants (Title 8, Article 107)

*Exposure limits from OSHA Annotated Table Z-1, www.osha.gov

### 8.2 Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

The employer or user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1920.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product

**Eye/face protection**
Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin protection**
Gloves should be worn at all times when handling this product. Gloves must be inspected prior to use. Use proper gloves removal technique (without touching glove's outer surface) to avoid contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.

Full Contact
Glove material: butyl-rubber
Glove thickness: 0.7mm
Break through time: 480 min

Splash Contact
Glove material: natural latex
Glove thickness: 0.6 mm
Break through time: 30 min

**Body protection**
If Tyvek-type disposable protective clothing is not worn during handling of this chemical, wear disposable Tyvek-type sleeves taped to your gloves. Chemical resistant apron or overalls.

**Respiratory protection**

Where the neat test chemical is weighed and diluted, wear a NIOSH- approved half face respirator equipped with an organic vapor/acid gas cartridge (specific for organic vapors, HCl, acid gas and SO2) with a dust/mist filter. Splash proof safety goggles should be worn while handling this chemical. Alternatively, a full-face respirator, equipped as above, may be used to provide simultaneous eye and respiratory protection.

**Thermal hazards**
Flame retardant antistatic protective clothing.

**Environmental exposure controls**
Avoid discharge into drains, water courses or onto the ground.

## SECTION 9: Physical and chemical properties and safety characteristics

| | |
|---|---|
| Physical state | Liquid |
| Appearance | Clear, colorless liquid |
| Color | colorless |
| Odor | Vinegar-like |
| Odor threshold | No data available. |
| pH | 0 |
| Melting point/freezing point | 17.22 °C (63 °F) |
| Boiling point or initial boiling point and boiling range | 117.72 °C (243 °F) estimated |
| Flash point | 40 °C (104 °F) - closed cup |
| Evaporation rate | No data available. |
| Flammability | Flammable liquid |
| Lower and upper explosion limit/flammability limit | No data available. |
| Vapor pressure | No data available. |
| Relative vapor density | No data available. |
| Density and/or relative density | 1.0492 g/ml @ 20/4 C |
| Solubility | No data available. |
| Partition coefficient n-octanol/water (log value) | -0.17 |
| Auto-ignition temperature | 426 °C (798.8 °F) estimated |
| Decomposition temperature | No data available. |
| Kinematic viscosity | No data available. |
| Explosive properties | Not explosive. |
| Oxidizing properties | Not oxidizing. |

**Further safety characteristics (supplemental)**
Density: 8.78 lbs/gal
Percent Volatile: 100 % estimated
VOC: 99 % estimated

## SECTION 10: Stability and reactivity

**10.1 Reactivity**
Non-reactive under normal conditions of use, storage, and transport.

**10.2 Chemical stability**
Stable under normal conditions of use, storage, and transport.

**10.3 Possibility of hazardous reactions**
Hazardous polymerization does not occur.

**10.4 Conditions to avoid**
Avoid heat, sparks, open flames, and other sources of ignition. Avoid temperatures exceeding the flash point. Avoid contact with incompatible materials

**10.5 Incompatible materials**
Strong oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols, Nitric acid

**10.6 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**

**Information on likely routes of exposure**
Inhalation: Harmful if inhaled.
Skin Contact: Causes severe skin burns. Harmful in contact with skin.
Eye Contact: Causes serious eye damage.
Ingestion: Causes digestive tract burns.

Dermal LD50 - Rabbit: 1060 mg/kg
Inhalation LC50 - Rat: 11.4 mg/l, 4 hours
Oral LD50 - Rat: 3.31 g/kg

Symptoms related to the physical, chemical, and toxicological characteristics: Burning pain and severe skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Inhalation may cause mucosal irritations, cough, shortness of breath.

**Skin corrosion/irritation**
Causes severe skin burns.

Rabbit
Result: Causes burns.
(IUCLID)

**Serious eye damage/irritation**
Causes serious eye damage.

Rabbit
Result: Causes burns.
(IUCLID)

Risk of blindness!

**Respiratory or skin sensitization**
Due to partial or complete lack of data the classification is not possible.

**Germ cell mutagenicity**
Due to partial or complete lack of data the classification is not possible.

**Carcinogenicity**
IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**Reproductive toxicity**
Due to partial or complete lack of data the classification is not possible.

**STOT-single exposure**
Due to partial or complete lack of data the classification is not possible.

**STOT-repeated exposure**
Due to partial or complete lack of data the classification is not possible.

**Aspiration hazard**
Due to partial or complete lack of data the classification is not possible.

**Additional information**
Systemic effects: Shortness of breath, gastric spasms, shock, Circulatory collapse, acidosis.

## SECTION 12: Ecological information

**Toxicity**
This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Crustacea
EC50 - Water flea (Daphnia magna): 65 mg/l, 48 hours

Fish
LC50 - Bluegill (Lepomis macrochirus): 75 mg/l, 96 hours

**Persistence and degradability**
No data is available on the degradability of this product.

**Bioaccumulative potential**
Partition coefficient: n-octanol/water
log Pow: -0.17 (25 °C)

**Mobility in soil**
No data available.

**Results of PBT and vPvB assessment**
No data available.

**Endocrine disrupting properties**
No data available.

**Other adverse effects**
This product contains volatile organic compounds which have a photochemical ozone creation potential.

## SECTION 13: Disposal considerations

**Disposal methods**

**Product disposal**
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Packaging disposal**
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**Waste treatment**
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (See: Disposal Instructions).

**Sewage disposal**
No data available.

**Other disposal recommendations**
Hazardous Waste Code

D001: Waste Flammable material with a flash point <140°F
D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]
The waste code should be assigned in discussion between the user, the producer, and the waste disposal company.

## SECTION 14: Transport information

**DOT (US)**
UN Number: UN2789
Class: 8
Subsidiary Risk: 3
Packing Group: II
Proper Shipping Name: Acetic acid, glacial or Acetic acid solution, with > 80% acid, by mass
Exceptions: 154
ERG Number: 132

**IMDG**
UN Number: UN2789
Class: 8
Subsidiary Risk: 3
Packing Group: II
EMS Number: F-E, S-C
Proper Shipping Name: Acetic acid, glacial or Acetic acid solution, with > 80% acid, by mass

**IATA**
UN Number: UN2789
Class: 8
Subsidiary Risk: 3
Packing Group: II
Proper Shipping Name: Acetic acid, glacial or Acetic acid solution, with > 80% acid, by mass

## SECTION 15: Regulatory information

### 15.1 Safety, health, and environmental regulations specific for the product in question

**California Prop. 65 Components**
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**SARA 311/312 Hazards**
Categories
Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or irritation

**SARA 313 Components**
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 302 Components**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**CERCLA Hazardous Substances List (40 CFR 302.4)**
ACETIC ACID (CAS 64-19-7): Listed

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**
ACETIC ACID (CAS 64-19-7): High priority.

**Clean Water Act**
The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 116.4A:

*Components*
Acetic acid

The following Hazardous Chemicals are listed under the U.S. Clean Water Act, Section 311, Table 117.3:
*Components*
Acetic acid

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307.

**U.S. State Right To Know Components**

| Product | California | Massachusetts | New Jersey | New York | Pennsylvania | Rhode Island |
|---|---|---|---|---|---|---|
| Acetic Acid (CAS: 64-19-7) | Listed | Listed | Listed | Listed | Listed | Listed |

**International Inventories**

| Product | TSCA | DSL /NDSL | EINECS /ELINCS | ENCS | IECSC | PICCS | AICS | NZIoC | TW | KECI |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetic Acid (CAS: 64-19-7) | Present | Present | Present | Present | Present | Present | Present | Present | Present | Present |

**Legend**
**X – Not present on list**
TSCA – United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS – European Inventory of Existing Chemical Substances or European List of Notified Chemical Substances
ENCS – Japanese ENCS (Existing & New Chemical Substances) Inventory
IECSC – Inventory of Existing Chemicals Substances Produced or Imported in China (IECSC)
PICCS – Philippines Inventory of Chemicals and Chemical Substances
AICS – Australian Inventory of Chemical Substances)
NZIoc – New Zealand Inventory of Chemicals
TW – Taiwan National Chemical Inventory
KECI – Korean Existing Chemicals Inventory

**HMIS Rating**

| Acetic acid | |
|---|---|
| HEALTH | 3 |
| FLAMMABILITY | 3 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | |

**NFPA Rating**


## SECTION 16: Other information

**16.1 Further information/disclaimer**
The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein. All information appearing herein is based upon data

obtained from manufacturers and/or recognized technical resources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

**16.2 Preparation information**

Sources of key data used to compile the Safety Data Sheet: Internal technical data, data from raw material SDSs, EPA CompTox Chemical Dashboard (comptox.epa.gov), EPA Substance Registry Services (SRS), OSHA Occupational Chemical Database (https://www.osha.gov/chemicaldata), OSHA 29CFR 1910.1200 Hazard Communication (https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200), European Chemicals Agency (ECHA) C&L Inventory Database (echa.europa.eu), CAMEO Chemicals (cameochemicals.noaa.gov), Code of Federal Regulations CFR Title 49 (https://www.ecfr.gov/current/title-49), California Proposition 65 (https://www.p65warnings.ca.gov/), California Proposition 65 List (https://oehha.ca.gov/proposition-65/proposition-65-list), National Library of Medicine (https://pubchem.ncbi.nlm.nih.gov/), TSCA Chemical Substances Inventory (https://www.epa.gov/tsca-inventory/how-access-tsca-inventory), OECD eChem Portal Search Results (https://www.echemportal.org/echemportal/substance-search).

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