# 500005 Aldehyde C-18 FCC

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 20-02-2026 Version: 1.0

## SECTION 1 Identification

### 1.1. Product identifier

| | | |
|---|---|---|
| Product form | : | Substance |
| Trade name | : | 500005 Aldehyde C-18 FCC |
| Chemical name | : | Nonalactone gamma |
| CAS-No. | : | 104-61-0 |
| Product code | : | 500005 |
| Formula | : | C9H16O2 |

### 1.2. Other means of identification

| | | |
|---|---|---|
| Synonyms | : | 4-Pentyl-butanolide / Prunolide / 4-Hydroxynonanoic acid, / Gamma-lactone / Gamma-amylbutyrolactone / 4-Hydroxynonanoic acid lactone / 1,4-Nonalolide / 4-Nonanolide |
| Other means of identification | : | FEMA: 2781 |

### 1.3. Recommended use of the chemical and restrictions on use

| | | |
|---|---|---|
| Recommended use | : | Concentrated aromatic and flavor ingredient which may be used in flavor and fragrance compounds according to legal and IFRA or FEMA GRAS/FDA guidelines. |
| Restrictions on use | : | For Manufacturing Use Only |

### 1.4. Supplier's details

**Supplier**
Vigon International, LLC
127 Airport Road,
East Stroudsburg,
PA 18301-9629,
USA

Telephone: +1 570-476-6300
Fax: +1 570-476-1110
Website: www.vigon.com
E-mail: regulatory@vigon.com

### 1.5. Emergency phone number

| | | |
|---|---|---|
| Emergency number | : | CareChem 24x7 ACCT Number: AZELIS-29003 | EUROPE: +44 1235 239670 | USA: +1 202 464 2554 | CANADA - +1 800 579 7421 (Toll Free)| ASIA - +65 3158 1074 | MOROCCO - +44 1235 239671 | REST OF THE WORLD - +44 1865 407333 (English only) |

## SECTION 2 Hazard identification

### 2.1. Classification of the substance or mixture

**GHS US classification**

| | | |
|---|---|---|
| Aquatic Acute 3 | H402 | Harmful to aquatic life. |
| Aquatic Chronic 3 | H412 | Harmful to aquatic life with long lasting effects. |

Full text of hazard classes and H-statements : see section 16

### 2.2. Label elements

**GHS US labelling**

| | | |
|---|---|---|
| Hazard statements (GHS US) | : | H402 - Harmful to aquatic life<br>H412 - Harmful to aquatic life with long lasting effects |

Precautionary statements (GHS US) : P273 - Avoid release to the environment.
P220 - Keep/Store away from incompatible materials.
P501 - Dispose of contents and/or container to in accordance with local/regional/national/international regulations.

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity

No additional information available

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

| Name | Product identifier | % |
|---|---|---|
| Nonalactone gamma<br>(Main constituent) | CAS-No.: 104-61-0 | 100 |

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4 First-aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general : Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

First-aid measures after inhalation : If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.

First-aid measures after skin contact : Wash skin thoroughly with soap and water for several minutes. Get medical attention if irritation develops and persists. Take off immediately all contaminated clothing.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids.

First-aid measures after ingestion : Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

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

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

Symptoms/effects after skin contact : Causes mild skin irritation.

Symptoms/effects after eye contact : Direct contact with eyes may cause temporary irritation. Causes mild eye irritation.

Symptoms/effects after ingestion : Expected to be a low ingestion hazard.

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

Other medical advice or treatment : Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray, fog, CO2, dry chemical, or alcohol resistant foam.

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

### 5.2. Specific hazards arising from the chemical

Reactivity in case of fire : Static charges generated by emptying package in or near flammable vapor may cause flash fire.

Hazardous decomposition products in case of fire : Fire may produce irritating, corrosive and/or toxic gases.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.

Protection during firefighting : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.

Other information : Use water spray to cool unopened containers.

## SECTION 6 Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

#### 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.

Environmental precautions : Retain and dispose of contaminated wash water. Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

### 6.2. Methods and materials for containment and cleaning up

Methods for cleaning up: : Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. The product is immiscible with water and will spread on the water surface. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Prevent product from entering drains. Do not allow material to contaminate ground water system. Absorb in vermiculite, dry sand or earth and place into containers.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste.

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

For further information refer to section 13.

## SECTION 7 Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

Incompatible materials : Strong oxidizing agents.

Maximum storage period : 1095 days

## SECTION 8 Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Use explosion-proof ventilation equipment to stay below exposure limits. Adequate ventilation should be provided so that exposure limits are not exceeded.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures, such as personal protective equipment

**Personal protective equipment:**

Protective clothing. Safety glasses. Wear protective gloves. Wear respiratory protection.

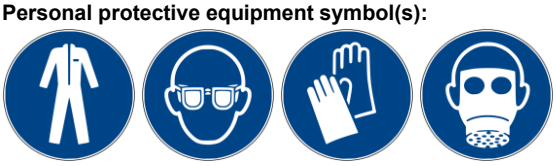
| **Hand protection:** |
|---|
| Chemical resistant gloves |

| **Eye protection:** |
|---|
| Wear safety glasses with side shields (or goggles) |

| **Skin and body protection:** |
|---|
| Wear suitable protective clothing |

| **Respiratory protection:** |
|---|
| Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided. |

**Personal protective equipment symbol(s):**



**Thermal hazard protection:**

Wear appropriate thermal protective clothing, when necessary.

**Other information:**

When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | Liquid |
| Appearance | : | As per product specification. |
| Colour | : | As per product specification. |
| Odour | : | Characteristic |
| Odour threshold | : | No data available |
| pH | : | No data available |
| Melting point | : | Not applicable |
| Freezing point | : | No data available |
| Boiling point | : | No data available |
| Flash point | : | > 200 °F (> 93.3 °C, Closed Cup) |
| Flammability (solid, gas) | : | No data available |
| Vapour pressure | : | 0.004 mm Hg (20°C) |
| Relative vapour density at 20°C | : | No data available |
| Relative density | : | 0.96 (25 °C) |
| Density | : | 0.96 g/cm³ (25 °C) |
| Molecular mass | : | 156.22 g/mol |
| Solubility | : | Water: Insoluble |
| Partition coefficient n-octanol/water (Log Pow) | : | 2.08 |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity, kinematic | : | No data available |
| Explosive limits | : | No data available |
| Explosive properties | : | Not explosive. |
| Oxidising properties | : | Not oxidizing. |
| Particle characteristics | : | No data available |

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

| | | |
|---|---|---|
| Additional information | : | Vapour density : 5.4<br>Flammability class : Combustible IIIB estimated |

## SECTION 10 Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 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 temperatures exceeding the flash point. Contact with incompatible materials.

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Fire may produce irritating, corrosive and/or toxic gases.

## SECTION 11 Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

| Nonalactone gamma (104-61-0) | |
|---|---|
| LD50 oral rat | 6600 mg/kg |
| LD50 dermal rabbit | > 5000 mg/kg |

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

| Nonalactone gamma (104-61-0) | |
|---|---|
| IARC group | Not listed |
| National Toxicity Program (NTP) Status | Not listed |

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
Symptoms/effects after skin contact : Causes mild skin irritation.
Symptoms/effects after eye contact : Direct contact with eyes may cause temporary irritation. Causes mild eye irritation.
Symptoms/effects after ingestion : Expected to be a low ingestion hazard.

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

Ecology - general : Harmful to aquatic life. Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute) : Harmful to aquatic life.
Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

| Nonalactone gamma (104-61-0) | |
|---|---|
| EC50 - Crustacea [1] | 52 mg/l (48h, Daphnia magna) |
| EC50 - Other aquatic organisms [1] | 63.5 mg/l (72 h, Pseudokirchneriella subcapitata) |

### 12.2. Persistence and degradability

| Nonalactone gamma (104-61-0) | |
|---|---|
| Persistence and degradability | No data available. |

### 12.3. Bioaccumulative potential

| Nonalactone gamma (104-61-0) | |
|---|---|
| Partition coefficient n-octanol/water (Log Kow) | 2.08 |

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Ozone : Not classified (Based on available data, the classification criteria are not met)

Other adverse effects : No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Fluorinated greenhouse gases : No

## SECTION 13 Disposal considerations

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

Waste treatment methods : Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

Sewage disposal recommendations : Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/ water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/ regional/national/international regulations.

Product/Packaging disposal recommendations : 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.

## SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

### 14.1. UN Number

Not regulated for transport

### 14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not regulated

Proper Shipping Name (IMDG) : Not regulated

Proper Shipping Name (IATA) : Not regulated

### 14.3. Transport hazard class(es)

**DOT**

Transport hazard class(es) (DOT) : Not regulated

**IMDG**

Transport hazard class(es) (IMDG) : Not regulated

**IATA**

Transport hazard class(es) (IATA) : Not regulated

### 14.4. Packing group

Packing group (DOT) : Not regulated
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Transport in bulk

Not applicable

### 14.7. Special precautions for user

**DOT**
Not regulated

**IMDG**
Not regulated

**IATA**
Not regulated

## SECTION 15 Regulatory information

### 15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

### 15.2. International regulations

No additional information available

### 15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16 Other Information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date : 20-02-2026

| Full text of hazard classes and H-statements | |
|---|---|
| Aquatic Acute 3 | Hazardous to the aquatic environment — Acute Hazard, Category 3 |
| Aquatic Chronic 3 | Hazardous to the aquatic environment — Chronic Hazard, Category 3 |
| H402 | Harmful to aquatic life |
| H412 | Harmful to aquatic life with long lasting effects |

Safety Data Sheet (SDS), USA

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.