# SAFETY DATA SHEET

## 1. Identification

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|---|---|
| **GHS product identifier** | **CO-899** |
| **MSDS Number** | ALCH451 |
| **Version #** | 03 |
| **Issue date** | 05-11-2011 |
| **CAS #** | 111-87-5 |
| **Product use** | Production of alkyl amines, aluminum rolling lubricants, tertiary amines, cosmetics, ethoxylates, halides/mercaptans, polymerization stabilizers, and sulfation. |
| **Recommended Restrictions** | Not available. |
| **Synonym(s)** | Caprylic alcohol |
| **Manufacturer** | P&G Chemicals Asia<br>238-A Thompson Road #21-01/10<br>Novena Square Tower A<br>Singapore 307684<br>(65) 6824 5728 (day phone)<br>PGChemMSDS.IM@pg.com<br>CHEMTREC: +1-703-527-3887<br>Quality or Service Issues: 1-800-477-8899 or +1-513-626-6882 |

## 2. Hazards identification

**GHS classification**

| | | |
|---|---|---|
| **Physical hazards** | Explosives | Not applicable |
| | Flammable gases | Not applicable |
| | Flammable aerosols | Not applicable |
| | Oxidizing gases | Not applicable |
| | Gases under pressure | Not applicable |
| | Flammable liquids | Not classified |
| | Flammable solids | Not applicable |
| | Self-reactive substances and mixtures | Not applicable |
| | Pyrophoric liquids | Not classified |
| | Pyrophoric solids | Not applicable |
| | Self-heating substances and mixtures | Classification not possible |
| | Substances and mixtures which, in contact with water, emit flammable gases | Not applicable |
| | Oxidizing liquids | Not applicable |
| | Oxidizing solids | Not applicable |
| | Organic peroxides | Not applicable |
| | Corrosive to metals | Classification not possible |
| **Health hazards** | Acute toxicity, oral | Not classified |
| | Acute toxicity, dermal | Not classified |
| | Acute toxicity, inhalation | Not applicable |
| | Skin corrosion/irritation | Not classified |
| | Serious eye damage/eye irritation | Category 2 |
| | Sensitization, respiratory | Classification not possible |
| | Sensitization, skin | Classification not possible |
| | Germ cell mutagenicity | Not classified |
| | Carcinogenicity | Classification not possible |
| | Reproductive toxicity | Classification not possible |

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| | Specific target organ toxicity, single exposure | Not classified |
| | Specific target organ toxicity, repeated exposure | Classification not possible |
| | Aspiration hazard | Not classified |
| **Environmental hazards** | Hazardous to the aquatic environment, acute hazard | Not classified |
| | Hazardous to the aquatic environment, long-term hazard | Not classified |
| | Hazardous to the ozone layer | Not classified |

**GHS label elements**

**Signal word** Warning

**Hazard statement** Causes serious eye irritation.

**Precautionary statement**

**Prevention** Wash hands thoroughly after handling. Wear suitable protective clothing and eye/face protection.

**Response** IF ON SKIN: Wash with plenty of soap and water. Immediately flush eyes with plenty of water for at least 15 minutes.

**Storage** No special storage precautions noted.

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

**Specific hazards** Combustible liquid and vapor. May be ignited by friction, heat, spark or flames.
Containers may explode when heated.
May travel considerable distance to source of ignition and flash back.

High vapor concentrations are irritating to the eyes, nose, throat, and lungs.

## 3. Composition/information on ingredients

| Components | CAS # | Percent |
|---|---|---|
| 1-OCTANOL | 111-87-5 | 95-99 |

| Additional components | CAS # | Percent |
|---|---|---|
| 1-DECANOL | 112-30-1 | <= 5 |
| HEXAN-1-OL | 111-27-3 | <= 1 |

## 4. First aid measures

**First aid procedures**

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**Skin** Take off immediately all contaminated clothing. Wash off with warm water and soap. Call a POISON CENTER or doctor/physician if you feel unwell. For minor skin contact, avoid spreading material on unaffected skin.

**Eye** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Do not induce vomiting. Aspiration may cause pulmonary edema and pneumonitis. Call a physician or poison control center immediately.

**Notes to physician** In case of shortness of breath, give oxygen. Keep victim warm. Symptoms may be delayed.

**General advice** Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before re-use.

## 5. Fire-fighting measures

**Suitable extinguishing media** Water. Foam. Dry powder. Carbon dioxide (CO2).

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

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| **Specific hazards arising from the chemical** | None known. |
| **Special protective equipment for fire-fighters** | Structural firefighters protective clothing will only provide limited protection. |
| **Protective equipment and precautions for firefighters** | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out. Water runoff can cause environmental damage. |

## 6. Accidental release measures

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| **Personal precautions** | Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. |
| **Environmental precautions** | Prevent further leakage or spillage if safe to do so. Do not contaminate water. |
| **Methods for containment** | 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. Collect spillage. |
| **Methods for cleaning up** | Large Spills: Prevent product from entering drains. Do not allow material to contaminate ground water system. Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.<br><br>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water.<br><br>Never return spills in original containers for re-use. |

## 7. Handling and storage

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| **Handling** | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Do not taste or swallow. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid contact with eyes. Avoid contact with clothing. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains. |
| **Storage** | Store locked up. Keep away from heat, sparks and open flame. Store in cool place. Store in a well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. Keep out of the reach of children. |

## 8. Exposure controls / personal protection

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| **Recommended monitoring procedures** | Not available. |
| **Personal protective equipment** | |
| **General** | Wear chemical protective equipment that is specifically recommended by the manufacturer. Eye wash fountain is recommended. |
| **Eye/face protection** | Wear eye/face protection. Wear chemical protective equipment that is specifically recommended by the manufacturer. |
| **Skin protection** | Wear appropriate chemical resistant clothing. Chemical resistant gloves. |
| **Respiratory protection** | No personal respiratory protective equipment normally required. |
| **Hand protection** | Wear protective gloves. |

## 9. Physical and chemical properties

**Appearance**

Liquid.

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| **Physical state** | Liquid. |
| **Color** | Colorless. |
| **Odor** | Fishy Alcoholic. |
| **Odor threshold** | Not available. |
| **pH** | Not available. |
| **Boiling point** | 399.2 - 460.4 °F (204 - 237.8 °C) at 760 mm Hg (101.3kPa) |
| **Flash point** | 177.8 - 195.8 °F (81 - 91 °C) Pensky-Martens Closed Cup |
| **Evaporation rate** | Not available. |
| **Flammability (Train fire)** | Not available. |

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| **Flammability limits in air, lower, % by volume** | Not available. |
| **Flammability limits in air, upper, % by volume** | Not available. |
| **Vapor pressure** | 0.071 mm Hg estimated @ 75 F (24 C) |
| **Vapor density** | 4.5 |
| **Relative density** | 0.83 at 25/25 C |
| **Solubility (H2O)** | <= 0.05 % |
| **Auto-ignition temperature** | 523.4 °F (273 °C) |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |

## 10. Stability and reactivity

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| **Chemical stability** | Material is stable under normal conditions. |
| **Possibility of hazardous reactions** | Hazardous polymerization does not occur. |
| **Conditions to avoid** | Heat, flames and sparks. |
| **Materials to avoid** | Strong oxidizing agents. |
| **Hazardous decomposition products** | Carbon monoxide. Toxic gas. Complete combustion forms carbon dioxide and water vapor. Partial combustion forms also carbon monoxide, soot, aldehydes and ketones. |

## 11. Toxicological information

**Toxicological data**

| **Product** | **Test Results** |
|---|---|
| 1-OCTANOL (111-87-5) | Acute Dermal LD50 Rabbit: 2000 - 4000 mg/kg Scientific Assoc, 1976; Rel 2<br>Acute Dermal LD50 Rat: > 5000 mg/kg Henkel, 1981; Rel 2 |
| **Additional components** | **Test Results** |
| HEXAN-1-OL (111-27-3) | Acute Dermal LD50 Rabbit: 2530 mg/kg<br>Acute Inhalation LC50 Mouse: > 21 mg/l 1.00 Hours<br>Acute Oral LD50 Mouse: 1950 mg/kg<br>Acute Oral LD50 Rat: 720 mg/kg<br>Acute Other LD50 Mouse: 103 mg/kg |
| 1-DECANOL (112-30-1) | Dermal Human: 4.00 hours Significantly less irritating than 20% Sodium Lauryl Sulfate (positive control).<br>Dermal Rabbit: 83 mg Severe eye irritation.<br>Dermal Rabbit: OECD Test Guidlines 404, PII=3.33.<br>Acute Dermal LD50 Rabbit: 3560 mg/kg<br>Acute Oral LD50 Rat: Practically non-toxic by acute oral route. |

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| **Routes of exposure** | Inhalation. Ingestion. Skin contact. Eye contact. |
| **Acute effects** | May be fatal if swallowed and enters airways. Toxic in contact with skin. |
| **Local effects** | Mild skin irritation |
| **Mutagenicity** | Suspected of causing genetic defects. |
| **Skin corrosion/irritation** | Causes irritation. |
| **Serious eye damage/eye irritation** | Causes serious eye irritation. |
| **Other information** | Not available. |

## 12. Ecological information

**Ecotoxicological data**

| **Product** | **Test Results** |
|---|---|
| 1-OCTANOL (111-87-5) | LC50 Fathead minnow (Pimephales promelas): 11.4 - 12.9 mg/l 96.00 Hours |
| **Additional components** | **Test Results** |
| HEXAN-1-OL (111-27-3) | LC50 Fathead minnow (Pimephales promelas): 89.7 - 106 mg/l 96.00 hours |
| 1-DECANOL (112-30-1) | EC50 Water flea (Daphnia magna): 11 mg/l 24.00 hours |

| Additional components | Test Results |
|---|---|
| | LC50 Bleak (Alburnus alburnus): 7.2 mg/l 96.00 hours<br>LC50 Fathead minnow (Pimephales promelas): 2.3 mg/l 96.00 hours<br>LC50 Fathead minnow (Pimephales promelas): 2.4 mg/l 96.00 hours |

**Ecotoxicity** Components of this product are hazardous to aquatic life.

**Environmental effects** Harmful to aquatic organisms.

**Persistence / degradability** Not established.

**Bioaccumulation** Not established.

**Aquatic toxicity** Toxic to aquatic organisms.

**Mobility** Not established.

**Other adverse effects** Not established.

## 13. Disposal considerations

**Disposal methods** Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

## 14. Transport information

**ADR**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**RID**

Not regulated as dangerous goods.

## 15. Regulatory information

**Inventory status**

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|---|---|---|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Switzerland | Switzerland FOPH | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## 16. Other information

**Disclaimer**

The submission of the MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied are for use only in connection with occupational safety and health.

The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific product designated herein, and does not relate to use in combination with any other material of any other process. Procter & Gamble assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the controlled product.

**Revision date**

05-11-2011

**SDS sections updated**

Product and Company Identification: Product and Company Identification
Hazards identification: Specific hazards
Hazards identification: Response
Hazards identification: Prevention
Hazards identification: Storage
Hazards identification: GHS Hazard Statements
Hazards identification: GHS Symbols
Hazards identification: GHS Signal Words
Toxicological Information: Toxicological Data