

MATERIAL SAFETY DATA SHEET

| SECTION | 1: Identification of the subs | stance/mixture and of the company | |
|----------------------------|---------------------------------------|--|-----------------------|
| 1.1. | Produce identifier | | |
| Chemical nam | e | Octyl Alcohol | |
| Trade name | | TECKNO A898, A899 | |
| CAS No. | | 111-87-5 | |
| 1.2. | Relevant identified uses of the sub | ostance or mixture and uses advised against | |
| 1.2.1. | Relevant identified uses | | |
| | | Production of alkyl amines, aluminum rolling lubricants, tertiary amines, cosmet | ics, ethoxylates, |
| | | halides/mercaptans, polymerization stabilizers, and sulfation. | |
| 1.2.2. | Uses advised against | | |
| | | No additional information available | |
| 1.3. | Details of the supplier of the safety | y data sheet | |
| | | Teck Guan (China) Ltd. | |
| | | No 1 Teck Guan Road, Rugao Port, Jiangsu, China | |
| | | 226532 | |
| | | +86-513-8758 5000 | |
| | | www.teckguan.com/cn | |
| SECTION | 2: Hazards identification | | |
| 2.1. | GHS classification | | |
| | Serious eye damage/eye irritation | Category 2 | |
| 2.2. | 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 ey | e/face protection. |
| | Response | IF ON SKIN: Wash with plenty of soap and water. Immediately flush eyes with pleast 15 minutes. | lenty of water for at |
| | Storage | No special storage precautions noted. | |
| | Disposal | Dispose of contents/container in accordance with local/regional/national/interna | tional regulations. |
| | | 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. | |
| 2.3. | Other 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. | |
| MSDS : A8EN | | | Version : 3.00 |
| Date of issue : 2012/08/20 | | Revision date : 2012/08/10 | Page 1 of 6 |

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

| SECTION | 3: Composition/informatior | on ingredients | |
|-------------|------------------------------------|---|---|
| | Components | CAS No. | Percent |
| _ | 1-OCTANOL | 111-87-5 | 98-100 |
| _ | Constituents | CAS No. | Percent |
| _ | 1-DECANOL | 112-30-1 | <=2 |
| | 1-HEXANOL | 111-27-3 | <=2 |
| SECTION | 4: First aid measures | | |
| | First aid procedures | | |
| | Inhalation | Remove victim to fresh air and keep at rest in a p | osition comfortable for breathing. Call a POISON |
| | | CENTER or doctor/physician if you feel unwell. | |
| | Skin | Take off immediately all contaminated clothing. W | /ash 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. F | Remove contact lenses, if present and easy to do. |
| | | Continue rinsing. Get medical attention if irritation | develops and persists. |
| | Ingestion | Rinse mouth thoroughly. Do not induce vomiting. | Aspiration may cause pulmonary edema and |
| | | pneumonitis. Call a physician or poison control ce | enter immediately. |
| | Notes to physician | In case of shortness of breath, give oxygen. Keep | o victim warm. Symptoms may be delayed. |
| SECTION | 5: Fire-fighting measures | | |
| 5.1. | Suitable extinguishing media | | |
| | | Water. Foam. Dry chemical powder. Carbon diox | ide(CO2). Do not use a solid water stream as it |
| | | may scatter and spread fire. | |
| 5.2. | Special hazards arising from the s | ubstance or mixture | |
| | | None known. | |
| 5.3. | Protective equipment and precauti | ons for firefighters | |
| | | Structural firefighters protective clothing will only | provide limited protection. Firefighters must use |
| | | standard protective equipment including flame read | tardant coat, helmet with face shield, gloves, |
| | | rubber boots, and in enclosed spaces, SCBA. Mo | we containers from fire area if you can do so |
| | | without risk. In the event of fire, cool tanks with w | ater spray. Use water spray to cool unopened |
| | | containers. Cool containers exposed to flames wi | th water until well after the fire is out. Water runoff |
| | | can cause environmental damage. | |
| SECTION | 6: Accidental release meas | ures | |
| 6.1. | Personal precautions | | |
| | | Immediately evacuate personnel to safe areas. K | eep unnecessary personnel away. Local |
| | | authorities should be advised if significant spillage | es cannot be contained. Do not touch damaged |
| | | containers or spilled material unless wearing app | ropriate protective clothing. |
| 6.2. | Environmental precautions | | |
| | | Prevent further leakage or spillage if safe to do so | b. Do not contaminate water. |
| 6.3. | Methods and material for containn | nent and cleaning up | |
| | Methods for containment | ELIMINATE all ignition sources (no smoking, flar | es, sparks or flames in immediate area). Stop the |
| | | flow of material, if this is without risk. Dike the spi | lled material, where this is possible. Collect |
| | | spillage. | |
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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. 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. Never return spills in original containers for re-use.

| SECTIO | N 7: Handling and storage | |
|--------|------------------------------------|--|
| 7.1. | 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 smoking. 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 personnel 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. |
| 7.2. | Conditions for safe storage, inclu | iding any incompatibilities |
| | | 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.

SECTION 8: Exposure controls / personal protection

| 8.1. | Control parameters | |
|------|--------------------------------|--|
| | | Ensure adequate ventilation, especially in confined area. |
| 8.2. | Exposure controls | |
| | Personal protective equipment | |
| | 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. |
| | General hygiene considerations | When using do not smoke. Do not get in eyes. Do not get this material in contact with skin. Wash |
| | | hands after handling and before eating. Handle in accordance with good industrial hygiene and |
| | | safety practice. |

| SECTION 9: Physical and chemical properties | | |
|---|---|---|
| 9.1. | Information on basic physical and chemical properties | |
| | Appearance | Liquid @ 72°F (22°C) |
| | Color | Colorless. |
| | Odor | Fishy, Alcoholic. |
| | Odor threshold | Not available |
| | рН | Not available |
| | Boiling point | 399.2 – 460.4°F (204 – 237.8°C) @ 760 mmHg (101.3kPa) |
| | Flash point | 177.8 – 195.8°F (81 – 91.°C) PMCC |
| | Vapor pressure | 0.071 mmHg @ 75ºF (24°C) |
| | Relative gravity | 0.83@ 25/25°C |
| | Solubility (H ₂ O) | <=0.05% @ 77°F (25°C) |
| | Auto-ignition temperature | 523.4°F (273°C) |
| | Flammability limits in air, | Not available. |
| | | |

upper, % by volume

Flammability limits in air,

Not available.

lower, % by volume

| SECTION | N 10: Stability and reactivity | |
|---------|------------------------------------|--|
| 10.1. | Chemical stability | |
| | | Material is stable under normal conditions. |
| 10.2. | Possibility of hazardous reactions | |
| | | Hazardous polymerization does not occur. |
| 10.3. | Conditions to avoid | |
| | | Heat, flames and sparks. |
| 10.4. | Materials to avoid | |
| | | Strong oxidizing agents |
| 10.5. | Hazardous decomposition | |
| | | Carbon monoxide. Toxic gas Complete combustion forms carbon dioxide and water vapor. Partial |
| | | combustion forms also carbon monoxide, soot, aldehydes and ketones. |

| SECTION 11: Toxicological information | | | |
|---------------------------------------|-----------------------------------|---|--|
| 11.1. | Toxicological data | | |
| | Product | Test Results | |
| | 1-OCTANOL (111-87-5) | Acute Dermal LD50 Rabbit: 2000 – 4000 mg/kg Scientific Assoc, 1976; Rel 2 | |
| | | Acute Dermal LD50 Rat: >5000 mg/kg Henkel, 1981; Rel 2 | |
| | Constituents | Test Results | |
| | 1-HEXANOL (111-27-3) | Acute Dermal LD50 Rabbit: 2530 mg/kg | |
| | | Acute Inhalation LC50 Mouse: > 21 mg/L 1.00 Hours | |
| | | Acute Oral LD50 Mouse: 1950 mg/kg | |
| | | Acute Oral LD50 Rat: 720 mg/kg | |
| | | 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 (position | |
| | | control) | |
| | | Dermal Rabbit: 83 mg Severe eye irritation | |
| | | Dermal Rabbit: OECD Test Guidelines 404, PII=3.33 | |
| | | Acute Dermal LD50 Rabbit: 3560 mg/kg | |
| | | Acute Oral LD50 Rat: Practically non-toxic by acute oral route | |
| | 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 | |
| | Skin corrosion / irritation | Causes irritation | |
| | Mutagenicity | Suspected of causing genetic defects | |
| | Serious eye damage/eye irritation | Causes serious eye irritation | |
| | Other information | Not available | |

| SECTION | 12: Ecological information | |
|---------|----------------------------|---|
| 12.1. | Ecotoxicological data | |
| | Product | Test Results |
| | 1-OCTANOL (111-87-5) | LC50 Fathead minnow (Pimephales promelas): 11.4 – 12.9 mg/L 96.00 Hours |
| | Constituents | Test Results |
| | | |

| | 1-HEXANOL (111-27-3) | LC50 Fathered 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 |
| | | LC50 Bleak (Alburnus alburnus): 7.2 mg/L 96.00 Hours |
| | | LC50 Fathead minnow (Pimephales promelas): 2.3 mg/L 96.00 Hours |
| | | 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 orgamisms |
| ECTION | 13. Disposal consideration | e |

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Disposal methods

13.1.

Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in

accordance with local/regional/national/international regulations.

| SECTION 14: Transport information | |
|-----------------------------------|-----------------------------------|
| ADR | |
| | Not regulated as dangerous goods. |
| ΙΑΤΑ | |
| | Not regulated as dangerous goods. |
| IMDG | |
| | Not regulated as dangerous goods. |
| RID | |
| | Not regulated as dangerous goods. |

SECTION 15: Regulatory information

| Inventory status | | | | |
|-----------------------------|---|------------------------------|--|--|
| Country (s) or region | Inventory name | On inventory (yes/no) 1 | | |
| 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 | yes | | |
| | (EINECS) | | | |
| 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 | yes | | |
| | (PICCS) | | | |
| Switzerland | Switzerland FOPH | yes | | |
| United States & Puerto Pico | Toxic Substances Control Act (TSCA) Inventory | yes | | |

¹ "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

SECTION 16: Other information

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 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. We assume no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the controlled product.