

SAFETY DATA SHEET

1. Identification

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|--------------------------|---|
| GHS product identifier | CE-810 KOSHER |
| MSDS Number | ME550 |
| Product Code | 99281145, 92004810 |
| Version # | 06 |
| Issue date | 10-07-2011 |
| CAS # | 67762-39-4 |
| Product use | Production of amides, methyl ester sulfonates, rolling oils, low-volume solvents, and metal working fluids. |
| Recommended Restrictions | Not available. |
| Synonym(s) | METHYL OCTANOATE * METHYL DECANOATE |
| Manufacturer | P&G Chemicals Asia 238-A Thompson Road #21-01/10 Novena Square Tower A Singapore 307684 (65) 6824 5728 (day phone) PGChemMSDS.IM@pg.com CHEMTREC: +1-703-527-3887 Quality or Service Issues: 1-800-477-8899 or +1-513-626-6882 |

2. Hazards identification

| | | |
|--------------------|--|-----------------------------|
| GHS classification | | |
| Physical hazards | Explosives | Classification not possible |
| | 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 | Classification not possible |
| | Pyrophoric liquids | Classification not possible |
| | Pyrophoric solids | Not applicable |
| | Self-heating substances and mixtures | Classification not possible |
| | Substances and mixtures which, in contact with water, emit flammable gases | Classification not possible |
| | Oxidizing liquids | Classification not possible |
| | Oxidizing solids | Not applicable |
| | Organic peroxides | Classification not possible |
| | Corrosive to metals | Classification not possible |
| Health hazards | Acute toxicity, oral | Classification not possible |
| | Acute toxicity, dermal | Classification not possible |
| | Acute toxicity, inhalation | Not applicable |
| | Skin corrosion/irritation | Classification not possible |
| | Serious eye damage/eye irritation | Classification not possible |
| | Sensitization, respiratory | Classification not possible |

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| | Sensitization, skin | Classification not possible |
| | Germ cell mutagenicity | Classification not possible |
| | Carcinogenicity | Classification not possible |
| | Reproductive toxicity | Classification not possible |
| | Specific target organ toxicity, single exposure | Classification not possible |
| | Specific target organ toxicity, repeated exposure | Classification not possible |
| | Aspiration hazard | Classification not possible |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard | Classification not possible |
| | Hazardous to the aquatic environment, long-term hazard | Classification not possible |
| | Hazardous to the ozone layer | Not classified |

3. Composition/information on ingredients

| Components | CAS # | Percent |
|-----------------------------------|------------|---------|
| FATTY ACIDS, C6-12, METHYL ESTERS | 67762-39-4 | 100 |

4. First aid measures

First aid procedures

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|------------|---|
| Inhalation | Move to fresh air. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. |
| Skin | Wash the skin immediately with soap and water. Remove contaminated clothing. Get medical attention if irritation develops and persists. Wash clothing separately before reuse. |
| Eye | Flush thoroughly with water for at least 15 minutes. Get medical assistance. |
| Ingestion | Get medical attention immediately. Never give anything by mouth to a victim who is unconscious or is having convulsions. Induce vomiting only under the instruction of a physician. |

Notes to physician Not available.

5. Fire-fighting measures

Suitable extinguishing media

SMALL FIRES: Use CO₂ or dry chemical. Water fog.
LARGE FIRES: Use foam.

Cool containers with flooding quantities of water until well after fire is out. Vapors may travel to the source of ignition and flash back.

Unsuitable extinguishing media

Water may be ineffective.

Specific hazards arising from the chemical

Carbon monoxide with incomplete combustion.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective clothing.

Protective equipment and precautions for firefighters

Not available.

6. Accidental release measures

Personal precautions

Wear self-contained breathing apparatus and full protective clothing.

Environmental precautions

Dike flow of spilled material using soil or sandbags to minimize contamination of drains, surface and ground waters.

Methods for containment

Not available.

Methods for cleaning up

Ventilate the area. Eliminate sources of ignition.
Contain spill. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Use clean non-sparking tools to collect absorbed material.

7. Handling and storage

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|---------------|---|
| Handling | Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Avoid contact with clothing. Wash thoroughly after handling. Ground and bond containers when transferring material. Use spark-proof tools and explosion-proof equipment. Empty containers contain product residue and can be dangerous, follow all hazard warnings and precautions even after container is emptied. Keep away from sources of ignition. |
| Storage | Keep away from heat, sparks, and flame. Keep away from possible contact with incompatible substances. Store in a cool dry place in accordance with 29 CFR 1910-106/NFPA 30. |
| Specific uses | Follow bulk handling and storage procedures as noted above. |

8. Exposure controls / personal protection

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|-----------------------------------|--|
| Recommended monitoring procedures | Not available. |
| Recommended monitoring procedures | Not available. |
| Engineering controls | Local exhaust is recommended. Mechanical - may be necessary if working at elevated temperatures or in enclosed areas. Provide ventilation to meet exposure limits. |
| Personal protective equipment | |
| General | Observe good industrial hygiene practices. Avoid contact with eyes. Avoid contact with skin. Avoid breathing (heated) vapors. Boots. Apron. Eye wash fountain and emergency showers are recommended. Wear suitable protective clothing. |
| Eye/face protection | Goggles or face shield with goggles, dependent upon potential exposure. |
| Skin protection | Nitrile gloves are recommended. Dependent upon degree of potential exposure, additional personal protective equipment may be required, such as chemical boots and full protective clothing. |
| Respiratory protection | None required for ambient temperature, although an appropriate NIOSH/MSHA approved air-purifying respirator should be used if a mist or vapor is generated. A NIOSH/MSHA approved self-contained breathing apparatus or air-supplied respirator is recommended if the concentration exceeds the capacity of cartridge respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres. |
| Environmental exposure controls | Contact Procter and Gamble for specific Community information. |

9. Physical and chemical properties

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| Appearance | |
| Liquid. | |
| Physical state | Liquid. |
| Color | Water white to Yellow. |
| Odor | Musty. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/Freezing point | -20 °F (-28.9 °C) @ 760 mm Hg (101.3kPa) |
| Boiling point | 330 °F (165.6 °C) @ 760 mm Hg (101.3kPa) |
| Flash point | 128 °F (53.3 °C) Pensky-Martens Closed Cup |
| Evaporation rate | Not available. |
| Flammability (Train fire) | Not available. |
| Flammability limits in air, lower, % by volume | Not available. |
| Flammability limits in air, upper, % by volume | Not available. |
| Vapor pressure | <= 5 mm Hg @ 72 F (22 C) |

| | |
|---------------------------|-----------------------------|
| Vapor density | 1 |
| Relative density | 0.87 @ 25/25 C |
| Solubility (H2O) | Negligible @ 72 F (22 C) |
| Auto-ignition temperature | Not available. |
| Viscosity | 3 cP at ambient temperature |

10. Stability and reactivity

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|------------------------------------|--|
| Chemical stability | Stable at normal conditions. |
| Possibility of hazardous reactions | Hazardous polymerization does not occur. |
| Conditions to avoid | Reacts with strong base to produce methanol. |
| Materials to avoid | Oxidizing agents. Strong bases. |
| Hazardous decomposition products | Carbon monoxide with incomplete combustion. |

11. Toxicological information

Toxicological data

| Constituents | Test Results |
|-----------------------------------|--|
| METHYL OCTANOATE (111-11-5) | Other Rabbit: Based on C810 ME Mixtures. Undiluted-mild transient eye irritation Acute Oral LD50 Rat: 20.5 g/kg Acute Oral LD50 Rat: Based on C8-10 ME. Expected to be greater than 23 g/kg of body weight. |
| Impurities | Test Results |
| METHYL HEXANOATE (106-70-7) | Dermal Rabbit: Skin Irritation - PII=2.78 (OECD Test Guideline 404) Acute Oral LD50 Rat: >= 5 g/kg |
| Skin corrosion/irritation | Not available. |
| Serious eye damage/eye irritation | Not available. |
| Other information | (Based on P&G data for related C8-10 methyl ester mixtures.) Acute Oral Toxicity: Practically non-toxic. The acute oral LD50 for rats was greater than 23 g/kg of body weight. Eye Irritation: The application of undiluted material to the rabbit's eye produced only mild transient irritation. Skin Irritation: 24 hour human patch test indicated that undiluted product produced mild irritation. The irritancy was less than the result produced by a 4% aqueous soap solution. |

12. Ecological information

Ecotoxicological data

| Product | Test Results |
|--|--|
| FATTY ACIDS, C6-12, METHYL ESTERS (67762-39-4) | LC50 Bluegill (Lepomis macrochirus): 423 mg/l 96 hours Practically non-toxic. |
| Constituents | Test Results |
| METHYL OCTANOATE (111-11-5) | LC50 Bluegill (Lepomis macrochirus): 423 mg/l 96 hours (Based on C8-10 mixture) |
| Aquatic toxicity | Microbiological Inhibition: None at 10,000 mg/l. |

13. Disposal considerations

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| Disposal methods | Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Do not dispose of via sinks, drains or into the immediate environment. |
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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) | No |
| Canada | Domestic Substances List (DSL) | No |
| 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) | No |
| Switzerland | Switzerland FOPH | No |
| 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

10-07-2011

SDS sections updated

Product and Company Identification: Product Codes