



Carolina International Sales Co., Inc

MATERIAL SAFETY DATA SHEET

2522 Plantation Center Drive
Matthews, NC 28105
(704) 845 9440

www.ciscochem.com

1. PRODUCT NAME: Prosolve ME
2. CHEMICAL NAME: 2,2,4-trimethyl-1,3-pentandediol Monoisobutyrate
3. SYNONYMS:
4. CAS NUMBER: 025265-774
5. COMPOSITION: 100% - 2,2,4-trimethyl-1,3-pentandediol Monoisobutyrate

**IN CASE OF
TRANSPORT EMERGENCY
CONTACT CHEMTREC
USA: 1-800-424-9300
INTERNATIONAL: 1-703-527-3887**

6. PROPERTIES: PHYSICAL FORM: Liquid
COLOR: Colorless
ODOR: Mild
ODOR THRESHOLD: not available
SPECIFIC GRAVITY at 20 +/- c (68 +/- F) (Water = 1): 0.95
VAPOR PRESSURE at 20 +/- c (68 +/- F): 0.006 mbar (0.004 mm Hg)
VAPOR DENSITY (AIR=1): 7.5
EVAPORATION RATE (N-BUTYL ACETATE=1): 0.002
VOLATILE FRACTION BY WEIGHT: 100%
BOILING POINT: 244 +/- C (471 +/- F)
MELTING POINT: -50 +/- C (-58 +/- F)
VISCOSITY at 20 +/- c (68 +/- F): 13.5 mPa. S or cP
SOLUBILITY IN WATER at 20 +/- c (68 +/- F): 500-860 mg/l
PH: not applicable
OCTANOL/WATER PARTITION COEFFICIENT: log P = 3.47, P = 2951
FLASH POINT: (Cleveland open cup): 120 +/- c (248 +/- F)
LOWER EXPLOSIVE LIMIT at 149 +/- c (300 +/- F): 0.62 volume %
UPPER EXPLOSIVE LIMIT at 201 +/- c (394 +/- F): 4.24 volume %
AUTO IGNITION TEMPERATURE (ASTM D-2155): 393 +/- c (740 +/- F)
SENSITIVITY TO MECHANICAL IMPACT: Insensitive at 100 kg-cm
EXPLOSIVE POWER: not available
SENSITIVITY TO STATIC DISCHARGE: Material is unlikely to accumulate a static charge which could act as an ignition source.
STABILITY: Stable
INCOMPATIBILITY: Material can react with strong oxidizing agents.
HAZARDOUS POLYMERIZATION: Will not occur

7. HAZARDS: HEALTH HAZARD: 1
FLAMMABILITY HAZARD: 0
REACTIVITY HAZARD: 0
MAXIMUM PERSONAL PROTECTION: 1

8. FIRE FIGHTING INFORMATION: EXTINGUISHING MEDIA: Water spray, dry chemical, carbon dioxide (CO₂), foam fire .
SPECIAL FIRE-FIGHTING PROCEDURES: Wear self-contained breathing apparatus and protective clothing.
HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, carbon monoxide
UNUSUAL FIRE AND EXPLOSION HAZARDS: none



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9. PERSONAL PROTECTION MEASURES: VENTILATION: Good general ventilation (typically 10 air charges per hour) should be sufficient to control airborne levels. Supplementary local exhaust ventilation, closed systems, or protection may be needed in special circumstances such as poorly ventilated spaces, evaporation from large surfaces, spraying, heating, etc.
RESPIRATORY PROTECTION: If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Respirator type: organic vapor
EYE PROTECTION: It is good industrial hygiene practice to minimize eye contact.
SKIN PROTECTION: It is good industrial hygiene practice to minimize skin contact.
RECOMMENDED DECONTAMINATION FACILITIES: eye, bath, washing facilities.
10. FIRST AID PROCEDURES: INHALATION: If symptomatic, move to fresh air. Get medical attention if symptoms persist.
EYE: Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms persist.
SKIN: Wash with soap and water. Get medical attention if symptoms occur.
INGESTION: If patient is fully conscious, give two glasses of water. Induce vomiting. This should be done by medical or experienced first-aid personnel. Seek medical attention.
11. EXPOSURE LIMITS: ACGIH Threshold Limit Value (TVL): not established
OSHA (USA) PERMISSIBLE EXPOSURE LIMIT (PEL): not established
12. TOXICOLOGICAL INFORMATION: EFFECTS OF EXPOSURE
INHALATION: Low hazard for usual industrial handling or commercial handling by trained personnel.
EYES: Low hazard for usual industrial handling or commercial handling by trained personnel.
SKIN: Low hazard for usual industrial handling or commercial handling by trained personnel.
INGESTION: Expected to be a low ingestion hazard. Abdominal discomfort, nausea and vomiting may occur.
ACUTE TOXICITY DATA
Oral LD-50 (rat): 6.86 mL/kg
Oral LD-50 (mouse): 1.6-3.2 g/kg
Inhalation LC-50 (rat): >2.75 mg/L/6 hours (highest concentration tested)
Dermal LD-50 (guinea pig): >20 mL/kg (highest concentration tested)
Dermal LD-50 (rabbit): >16 mL/kg (highest concentration tested)
Skin irritation (guinea pig): none
Repeated skin application (guinea pig): slight irritation
Skin sensitization (guinea pig): none
Eye irritation (rabbit, unwashed eyes): slight to moderate
Eye irritation (rabbit, washed eyes): slight
SUBCHRONIC TOXICITY DATA
Oral study (2 weeks, rat): NOAEL = 1000 mg/kg/day (increase in weight: liver); NOEL = 100 mg/kg/day.
13. ECOLOGICAL INFORMATION: Introduction: This environmental effects summary is written to assist in addressing emergencies created by an accidental spill which might occur during the shipment of this, and, in general, it is not meant to address discharges to sanitary sewers or publicly owned treatment works.
Data for this material have been used to estimate its environmental impact. It has the following properties: A moderate potential to affect some aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination and/or early growth of some plants, some potential to biodegrade with acclimated microorganisms from activated sludge, a moderate potential to persist in the environment. It is expected to have the following properties: A moderate biochemical oxygen demand and may cause oxygen depletion in aqueous systems.
OXYGEN DEMAND DATA



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COD: 2.2 g oxygen/g
thOD: 2.4 g oxygen/g
BOD-5 and BOD-20 were not determined because the aqueous solubility of the test article was below that which is required for these tests.
ACUTE AQUATIC EFFECTS DATA
96-h LC-50 (fathead minnow): 31 microliters/L, NOEC: 10 microliters/L
48-h EC-50 (daphnid): >100 microliters/L
96-h LC-50 (pill bug): >100 microliters/L
96-h LC-50 (sideswimmer): >100 microliters/L, NOEC: 10 microliters/L
96-h LC-50 (flatworms): 40 microliters/L, NOEC: 10 microliters/L
96-h LC-50 (segmented worms): 32 microliters/L, NOEC: 10 microliters/L
96-h LC-50 (snail): >100 microliters/L
Biodegradation: A 21 day test for inherent biodegradability using acclimated microorganisms showed 57% degradation of the test article as measured by carbon dioxide evolution.
Secondary waste water treatments effects: 5-hour IC-50: >215 mg/L
7-day Plant germination effects: No adverse effect concentration:
Lettuce: 100 microliters/L
Radish: 100 microliters/L
Ryegrass: 100 microliters/L

14. DISPOSAL CONSIDERATIONS: Discharge, treatment, or disposal may be subject to national, state, or local laws. INCINERATE

15. CARCINOGENIC PROPERTIES & NOTIFICATIONS: CARCINOGENIC CLASSIFICATION (components present at 0.1 % or more): International Agency for Research on Cancer (IARC): not listed
American Conference of Governmental Industrial Hygienists (ACGIH): not listed
National Toxicology Program (NTP): not listed
Occupational Safety and Health Administration (OSHA): not listed

16. TRANSPORT INFORMATION: DOT (USA) Classification: not listed
TDG (CANADA) Classification: not regulated
International Civil Aviation Organization (ICAO) Classification: not regulated
International Maritime Dangerous Goods (IMDG) Classification: not regulated
OSHA hazardous chemicals: none
Materials known to the state California to cause of Cancer: none
Materials known to the State of California to cause adverse reproductive effects: none
New Jersey Workplace Hazardous Substance List: none
SARA (USA) Sections 311 and 312 hazard classifications: not applicable
US Toxic Substance Control Act (CEPA) and Domestic Substances List (DSL): This product is listed on the DSL or otherwise complies with CEPA new substance notification requirements.

17. HANDLING & STORAGE: Personal Precautionary Measures: No Special measures should be needed under anticipated conditions of use.
Prevention of Fire and Explosion: Keep from contact with oxidizing materials. Minimize exposure to air. If peroxide formulation is suspected, do not open or move container.
Storage: Keep container closed

18. ACCIDENTAL RELEASE MEASURES: Steps to be taken if material is released or spilled: Collect for disposal. This product may be toxic to fish and to the microorganisms in a wastewater treatment plant. Avoid runoff to waterways and sewers.
WASTE DISPOSAL METHOD: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.



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For large spills: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams.

19. REGULATORY INFORMATION: US/Canadian Label Statements: Low hazard for usual industrial or commercial handling by trained personnel. Get medical attention if symptoms occur.
CAUTION: For manufacturing, processing or repacking by trained personnel.