

Inhalation: Remove victim to fresh air. Get medical attention if irritation develops or persists.

Ingestion: If conscious, wash out mouth with small amount of water. Do not give anything to an unconsciousness or drowsy person. Do not induce vomiting. Get medical attention.

See Section 11 for more detailed information on health effects.

4.2 Most Important symptoms and effects, both acute and delayed: Inhalation of mists or heated vapors may cause irritation of the eye and respiratory system.

4.3 Indication of any immediate medical attention and special treatment needed: Immediate medical treatment is not anticipated to be required.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media:

Water spray, carbon dioxide, dry chemical or foam to extinguish fires.

5.2 Special Hazards Arising from the Substance or Mixture

Unusual Fire and Explosion Hazards: None

Combustion Products: Carbon dioxide and carbon monoxide

5.3 Advice for Fire-Fighters: Firefighters should wear full emergency equipment and approved positive pressure self-contained breathing apparatus. Cool exposed intact containers with water spray or stream.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Wear appropriate protective equipment. Ventilate the area. Use caution – surfaces will be very slippery.

6.2 Environmental Precautions:

Prevent entry in storm sewers and waterways. Report spill as required by local and federal regulations.

6.3 Methods and Material for Containment and Cleaning Up:

Collect with an inert absorbent, and place into closable containers for disposal. Wash spill site with detergent and water.

6.4 Reference to Other Sections:

Refer to Section 8 for personal protective equipment, and Section 13 for disposal information.

SECTION 7: HANDLING and STORAGE

7.1 Precautions for Safe Handling:

Use suitable protective equipment. Avoid contact with eyes, skin and clothing. Avoid breathing mists. Wash thoroughly after handling. Remove contaminated clothing and launder before re-use. Do not eat, drink, or smoke while handling. Use only with adequate ventilation. This material does not readily evaporate and will make work surfaces (floors, steps, etc.) very slippery. Use caution and clean work surfaces as needed to reduce hazard.

7.2 Conditions for Safe Storage, Including any Incompatibilities:

Protect containers from physical damage. Store tightly sealed under inert gas in a cool, well-ventilated area. Keep away from intense light. Keep containers closed when not in use. Follow all SDS precautions in handling empty

containers.

7.3 Specific end use(s):

Industrial uses: Industrial Cleaning Product

Professional uses: None

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Chemical Name	OSHA PEL	ACGIH TLV	Biological Limit Value
Methyl 9-Decenoic Acid	None Established	None Established	None Established

8.2 Exposure Controls:

Recommended Monitoring Procedures: None

Appropriate Engineering Controls: Good general room ventilation should be adequate under normal, ambient temperature conditions. If product is heated, sprayed or used in enclosed/confined spaces, mechanical ventilation such as local exhaust may be required.

Personal Protective Measurers

Eye/face Protection: Wear safety glasses or chemical safety goggles to avoid eye contact. For use at elevated temperatures or spray operations, wear unvented safety goggles.

Skin Protection: Impervious clothing is recommended if needed to avoid skin contact.

Hands: Impervious gloves such as rubber are recommended.

Respiratory Protection: For spray applications, elevated temperature use or other operations where exposure to vapors or mists are high, use an approved respirator with an organic vapor/dust/mist filter. Full facepiece respirator will also provide the needed eye protection. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with good Industrial Hygiene practice.

Other protection: Suitable eye and skin washing facilities should be available in the work area.

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties

Appearance: Colorless liquid

Odor Threshold: Not established

Melting/Freezing Point: <-20°C)

Flash Point: 102°C (215.6°F)

Lower Flammability Limit: Not established

Upper Flammability Limit: Not established

Vapor Density(Air=1): > 1

Solubility: In water 7.81 mg/L @ 20°C

Autoignition Temperature: 250°C (482°F)

Viscosity: Not established

Oxidizing Properties: None

Molecular Formula: C11H20O2

Odor: Waxy, fruity and milky.

pH: Not established

Boiling Point: 235°C @766 mmHg

Evaporation Rate: Not established

Vapor Pressure: 0.098 mmHg @ 25°C

Relative Density: 0.888

Octanol/Water Partition Coefficient: log Kow 4.6

Decomposition Temperature: Not applicable

Explosive Properties: None

Specific Gravity (H₂O= 1): 0.888 g/cm³

Molecular Weight: 184

9.2 Other Information: None available

SECTION 10: STABILITY and REACTIVITY

- 10.1 Reactivity:** Not reactive under normal conditions
- 10.2 Chemical Stability:** Stable.
- 10.3 Possibility of Hazardous Reactions:** None known.
- 10.4 Conditions to Avoid:** Keep away from ignition sources, and extreme heat.
- 10.5 Incompatible Materials:** Incompatible with oxidizing agents.
- 10.6 Hazardous Decomposition Products:** Carbon dioxide, carbon monoxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Eye Contact: May cause mild irritation.

Skin contact: May cause mild irritation.

Inhalation: Inhalation of mists or heated vapors may cause eye and respiratory irritation.

Ingestion: May cause gastrointestinal irritation.

Acute toxicity: Rat oral LD50 >2000 mg/kg (OECD 420); rat dermal LD50 >2000 mg/kg (OECD 402)

Skin corrosion/irritation: Non-irritant in-vitro (OECD 439)

Eye damage/ irritation: Mild irritant rabbit (OECD 405)

Respiratory Irritation: No data available

Respiratory Sensitization: No data available

Skin Sensitization: Not classified as a sensitizer based on the results of a mouse local lymph node assay (OECD 429) and expert review.

Germ Cell Mutagenicity: Negative in-vitro chromosome aberration (human lymphocyte) test (OECD 473), negative bacterial (Ames) gene mutation test (OECD 471) and negative in-vitro mammalian cell (mouse lymphoma) gene mutation test (OECD 476).

Carcinogenicity: No data available. None of the components of this product are listed as carcinogens by IARC or the EU Dangerous Substances Directive.

Reproductive Toxicity: No reproductive or developmental effects observed in screening study; rat oral NOEL >1000 mg/kg bw/day (OECD 422).

Specific Target Organ Toxicity:

Single Exposure: No data available

Repeat Exposure: No significant effects observed in repeated dose study; rat oral NOAEL >1000 mg/kg bw/day (OECD 422).

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity: Fish (fathead minnow) 96 hr LC50 4.4 mg/L (OECD 203); *Daphnia magna* 48 hr EC50 0.8 mg/L; Algae (*Pseudokirchnerella subcapitata*) 96 hr ErC50 7.6 mg.

12.2 Persistence and degradability: Estimated half-life at pH 4, pH 7 >1 yr, at pH 9 15.5 hr (25°C, OECD 111). Readily biodegradable (OECD 301B).

12.3 Bioaccumulative Potential: Log Pow 4.6 (OECD 117) which indicates a potential for bioaccumulation, however, an estimated BCF of 21.3 L/kg and ready biodegradability indicates a low potential for bioaccumulation.

12.4 Mobility in Soil: Absorption/desorption Coefficient Log Koc 3.15 (OECD 121)

12.5 Results of PBT and vPvB assessment: Not classified as persistent, bioaccumulative and toxic (PBT). Not classified as very persistent and very bioaccumulative (vPvB).

12.6 Other Adverse Effects: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

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

SECTION 14: TRANSPORTATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	Not applicable	Not regulated	Not applicable	Not applicable	Not applicable
Canadian TDG	Not applicable	Not regulated	Not applicable	Not applicable	Not applicable
EU ADR/RID	UN3082	Environmentally Hazardous Substance, liquid, n.o.s. (methyl 9-decenoate)	9	III	Yes
IMDG	UN3082	Environmentally Hazardous Substance, liquid, n.o.s. (methyl 9-decenoate)	9	III	Marine Pollutant
IATA/ICAO	UN3082	Environmentally Hazardous Substance, liquid, n.o.s. (methyl 9-decenoate)	9	III	Yes

14.6 Special Precautions for User: None

14.7 Transport in Bulk According to Annex II MARPOL 73/78 and the IBC Code: Not determined

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

U.S. REGULATIONS

EPA SARA 302: This product does not contain chemicals regulated under SARA Section 302.

EPA SARA 311 HAZARD CLASSIFICATION: Not hazardous

EPA SARA 313: This product contains the following chemicals that are regulated under SARA Title III, section 313:

None known

CALIFORNIA PROPOSITION 65: This product contains the following chemicals which are known to the State of California to cause cancer, reproductive toxicity or birth defects (developmental toxicity): None known

EPA TSCA INVENTORY: This substance is listed on the TSCA inventory.

INTERNATIONAL INVENTORIES

EUROPEAN UNION: This substance has been registered under REACH.

SECTION 16: OTHER INFORMATION

NFPA Rating: Health: 1 Fire: 1 Instability: 0
HMIS Rating: Health: 1 Fire: 1 Physical Hazard: 0

SDS Date of Preparation/Revision: August 28, 2015

Revision History: Change to health effects and PPE recommendations. Revisions to Sections 4, 6, 7, 8 and 11.

CLP/GHS Classification and H Phrases for Reference (See Section 3)

H400 Very toxic to aquatic life.

WE RECOMMEND THAT CONTAINERS BE EITHER PROFESSIONALLY RECONDITIONED FOR RE-USE BY CERTIFIED FIRMS OR PROPERLY DISPOSED OF BY CERTIFIED FIRMS TO HELP REDUCE THE POSSIBILITY OF AN ACCIDENT. DISPOSAL OF CONTAINERS SHOULD BE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. "EMPTY" DRUMS SHOULD NOT BE GIVEN TO INDIVIDUALS.

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