









<b>Freezing Point</b>	See Pour Point
<b>Boiling Point (760 mmHg)</b>	> 100 °C at 760 mmHg Calculated
<b>Flash Point</b>	ASTM D 93 Closed Cup >93°C
<b>Evaporation Rate (Butyl Acetate = 1)</b>	<0.01 Calculated
<b>Flammability (solid, gas)</b>	Not applicable to liquids
<b>Lower Explosion Limit</b>	No test data available
<b>Upper Explosion Limit</b>	No test data available
<b>Vapor Pressure</b>	No test data available
<b>Relative Vapor Density (air = 1)</b>	>1 Calculated
<b>Relative Density (water = 1)</b>	1.002 @ 20°C / 20°C
<b>Water Solubility</b>	100% in water
<b>Auto-ignition Temperature</b>	No test data available
<b>Decomposition Temperature</b>	No test data available
<b>Kinematic Viscosity</b>	@ 40°C 2.3373 cst
<b>Explosive Properties</b>	No data available
<b>Oxidizing Properties</b>	No data available
<b>9.2 Other information</b>	
<b>Pour Point</b>	2.22°C or (+28°F)

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## SECTION 10. STABILITY AND REACTIVITY

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**10.1 Reactivity:** No data available

**10.2 Chemical Stability:** Thermally stable at typical use temperatures.

**10.3 Possibility of Hazardous Reactions:** Polymerization will not occur.

**10.4 Conditions to Avoid:** Exposure to elevated temperatures can cause product to decompose.

**10.5 Incompatible Materials:** Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

**10.6 Hazardous Decomposition Products:** Decomposition products depend upon temperature, air supply and the presence of other materials.

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## SECTION 11. TOXICOLOGICAL INFORMATION

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Toxicological information on this product, or its components, appears in this section when such data is available.

### 11.1 Information on Toxicological Effects

**Acute toxicity:** LC50-Level of 10,000 mg/kg; No effects after 168 hours; Non-Toxic.

**Acute oral toxicity:** Very Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

Typical for this family of materials.

ORAL LD50: Levels of >5,000 mg/kg: No effects.

**Acute dermal toxicity:** Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Typical for this family of materials.

LD50, Rabbit, > 2,000 mg/kg as tested.

**Acute inhalation toxicity:** No adverse effects are anticipated from single exposure to vapor. For respiratory irritation and narcotic effects: No relevant data found. The LC50 has not been determined.

**Skin corrosion/irritation:** Skin irritation testing: Final dermal irritation determination, It is a mild skin irritation based on a score of 2.09 compared to standard of draize score > 1.5, but < 2.3.

**Serious eye irritation:** None

**Eye Irritation Testing:** Utilization of InVitro International's Irritation Assay System was used to evaluate the product and is classified as a mild ocular irritant, under EU CLP classification, with an IDE score of 15.2, which reflects a classification of Category 2 irritant.

**Sensitization:**

**For skin sensitization:** No relevant data found.

**For respiratory sensitization:** No relevant data found.

**Specific target organ systemic toxicity (single exposure):** Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific target organ systemic toxicity (repeated exposure)**

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

**Carcinogenicity:** No relevant data found.

**Teratogenicity:** No relevant data found.

**Reproductive toxicity:** No relevant data found.

**Mutagenicity:** No relevant data found.

**Aspiration hazard:** Based on physical properties, not likely to be an aspiration hazard.

**COMPONENTS INFLUENCING TOXICOLOGY:** None

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## SECTION 12. ECOLOGICAL INFORMATION

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Ecotoxicological information on this product, or its components, appears in this section when such data is available. This is a totally safe and efficient biocatalytic degrader of organic waste materials. The product causes contaminants and other organic matter to eventually biodegrade, thus returning to carbon dioxide and water. When disposed of in sewage and drainage systems, the product aids in the breakdown of pollutants such as oil.

### 12.1 Toxicity

**Ecotoxicity:** The material is non-toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

**Fish acute & prolonged toxicity:** For this family of materials: LC50, fathead minnow (*Pimephales promelas*), static, 96 hrs. 100% survival rate at 1ppm.

**Aquatic invertebrate acute toxicity:** EC50, water flea *Daphnia magna*, 48 hrs. Toxicity: Not Detected.

**Toxicity to micro-organisms:** EC50 *Vibrio fischeri* (*Photobacterium phosphoreum*), *Pseudokirchneriella subcapitata* (*Selenastrum capricornutum*) Toxicity: Not Detected.

**Mutagenicity test:** The organisms *P. subcapitata* and *D. magna* are continental water organisms. *V. fischeri* is an organism that can be involved for both continental water and marine water samples. *Salmonella typhimurium* is an organism to evaluate sweet water and its results can be applied to the environment and extrapolated to humans.

**Salmonella typhimurium:** Mutagenicity: Not Detected

**Marine acute toxicity:** The marine invertebrate species, *Mysidopsis bahia* (*Americamysis bahia*) and the marine vertebrate species, *Menidia beryllina* were used in the tests. For the marine invertebrate species, 48-Hour Acute *Mysidopsis bahia* survival test results : LC-50 -316.23 (ppm), The 96-Hour LC-50 (concentration at which 50% mortality is expected to occur) *Menidia beryllina* survival data was 203.04 (ppm).

### 12.2 Persistence and Degradability

**OECD biodegradation tests:** For this family of materials: OECD Guideline for Testing of Chemicals, 302 B, Inherent Biodegradability: Zahn-Wellens/EMPA-Test Adopted: July 17, 1992, as well as German Standard Procedures for Water, Waste Water and Sludge Testing, Test procedure with water organisms (Group L) Determination of the biodegradability, Static Test (L25), DIN 38 412, Part 25.

**Biodegradation exposure time method:** > 58% -48 HRS OECD 302B Test Closed Bottle Ready  
Biodegradability Test Reference: Environmental Protection Agency - Toxic Substances Control Act, Code of Federal Regulations Title 40, part 796, section 3200 (40 CFR 796.3200)

**Biodegradation exposure time method:** > 75%-28 Days

**Environmental fate:** Persistence and Degradability: The material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

### 12.3 Bioaccumulative Potential

Unknown

### 12.4 Mobility in Soil

No specific, relevant data available for assessment.

### 12.5 Results of PBT and vPvB assessment

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

### 12.6 Other Adverse Effects

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

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## SECTION 13. DISPOSAL CONSIDERATIONS

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### 13.1 Waste Treatment Methods

Flush down sewage or drainage systems with copious amounts of water. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing waste.

The definitive assignment of this material to the appropriate EWC group, and thus its proper EWC code, will depend on the use that is made of this material. Contact the authorized waste disposal services.

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**SECTION 14. TRANSPORT INFORMATION**

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**Classification for ROAD and Rail Transport (ADR/RID):**

14.1 UN number	Not applicable
14.2 Proper shipping name	Not applicable
14.3 Class	55
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not considered environmentally hazardous based on available data.
14.6 Special precautions for user	No data available.

**Classification for SEA Transport (IMO-IMDG):**

14.1 UN number	Not applicable
14.2 Proper shipping name	Not applicable
14.3 Class	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not considered as marine pollutant based on available data.
14.6 Special precautions for user	No data available.
14.7 Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk.

**Classification for AIR Transport (IATA/ICAO):**

14.1 UN number	Not applicable
14.2 Proper shipping name	Not applicable
14.3 Class	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	No data available.

This information is not intended to convey all specific regulatory or operational requirements /information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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**SECTION 15. REGULATORY INFORMATION**

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**15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture****REACH Regulation (EC) No 1907/2006**

This product contains only components that have been either pre-registered, registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No.



1907/2006 (REACH). The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer's/user's responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

**Seveso II - Directive 96/82/EC and its amendments:**

Listed in Regulation: Directive 96/82/EC does not apply

**15.2 Chemical Safety Assessment**

Not applicable

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**SECTION 16. OTHER INFORMATION**

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**Full text of H-Statements referred to under sections 2 and 3**

H315 Causes skin irritation.  
H316 Causes mild skin irritation  
H319 Causes serious eye irritation.  
H320 Causes eye Irritation

**Full text of R-Phrases referred to under sections 2 and 3**

R36 Irritating to eyes.  
R38 Irritating to skin.

**Product literature**

Additional information on this product may be obtained by calling your sales or customer service contact. Ask for a product brochure. Additional information on this and other products may be obtained by visiting our web page.

**Information source and references**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

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