

# MATERIAL SAFETY DATA SHEET

Total Solutions  
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GENERAL INFORMATION NUMBER: (414) 354-6417  
CHEMTREC: (800) 424-9300

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## I - Product Identification

### Liquidase 250

PRODUCT CODE: 0534

CHEMICAL FORMULATION: Liquid bacteria/enzyme solution.

NFPA HAZARD IDENTIFICATION SYSTEM: HEALTH: 0

FLAMMABILITY: 0

REACTIVITY: 0

HAZARD RATING: 4 - Extreme; 3 - High; 2 - Moderate; 1 - Slight; 0 - Insignificant

## II - Hazardous Ingredients

Values reported as TWA unless noted.

<u>SUBSTANCE</u>	<u>APPROX</u> <u>%</u>	<u>OSHA</u> <u>PEL</u>	<u>ACGIH</u> <u>TLV</u>	<u>EPA 40 CFR:</u> <u>302</u> <u>355</u> <u>372</u>	<u>CAS #</u>
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Contains no hazardous components as defined in 29 CFR 1910.1200

Key: PEL: Permissible Exposure Limit TLV: Threshold Limit Value C: Ceiling level STEL: Short Term Exposure Limit  
N/A: Not Applicable N/D: Not Determined N/E: Not Established Y: Yes N: No  
302: CERCLA List of Hazardous Substances and Reportable Quantities (40 CFR 302.4).  
355: SARA TITLE III / List of Extremely Hazardous Substances for Emergency Planning and Notification (40 CFR 355).  
372: SARA TITLE III / List of Toxic Chemicals subject to Release Reporting (Community Right to Know) (40 CFR 372).

## III - Physical Data

BOILING POINT (°F): N/D

SPECIFIC GRAVITY (WATER = 1): 1.01

VAPOR PRESSURE (mm Hg): N/D

VOC CONTENT (% by weight): <10.0

VAPOR DENSITY (AIR = 1): N/D

EVAPORATION RATE (WATER = 1): N/D

SOLUBILITY IN WATER: Soluble

pH: 7.0-8.0

APPEARANCE AND ODOR: Cloudy, orange-brown liquid; bland odor.

## IV - Fire and Explosion Hazard Data

FLASH POINT (°F): None (TEST METHOD): Closed cup

FLAMMABLE LIMITS IN AIR (VOLUME %)

UPPER: N/A

LOWER: N/A

EXTINGUISHING MEDIA: Water, foam, carbon dioxide, dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: Cool fire exposed containers with water fog. Firefighters should be equipped with full protective gear including self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARD: None

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**V - Reactivity Data**

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**STABILITY:** Stable**INCOMPATIBILITY:** None.**CONDITIONS TO AVOID:** None.**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may produce oxides of carbon.**HAZARDOUS POLYMERIZATION:** Will not occur.

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**VI - Health Hazard Data**

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**ROUTES OF ENTRY**      **INHALATION:**      **EYE CONTACT:** X      **SKIN CONTACT:** X      **INGESTION:** X  
**INGREDIENTS THAT ARE CONSIDERED BY OSHA, NTP, IARC TO BE SUSPECTED HUMAN CARCINOGENS:** None**EFFECTS OF OVEREXPOSURE****IF IN EYES:** Mild irritation and redness.**IF ON SKIN:** Irritation, defatting of skin with prolonged exposure. Bacterial infection may occur through open wounds or broken skin.**IF SWALLOWED:** Nausea, cramps, diarrhea. Aspiration of this product may occur.**IF INHALED:** None known under normal use.**EMERGENCY AND FIRST AID PROCEDURES****IF IN EYES:** Flush eyes and under eyelids with plenty of cool water for at least 15 minutes. If irritation persists, obtain medical attention.**IF ON SKIN:** Wash with water. In case of contact with open wounds or broken skin wash affected area with soap & water and apply a topical antiseptic agent.**IF SWALLOWED:** Contact physician or poison control center immediately. Give affected person 1 to 2 glasses of water. Never give anything to an unconscious person.**IF INHALED:** Remove person to fresh air.

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**VII - Spill or Leak Protection**

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**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Contain spill. Soak up spilled material with inert absorbent material and place in a properly marked closed container for proper disposal or recover for reuse. Rinse remaining residue with water.**WASTE DISPOSAL METHOD:** Consult local environmental authorities.

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**VIII - Special Protection Information**

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**RESPIRATORY PROTECTION:** Use with adequate ventilation.**VENTILATION****LOCAL:** Not required**MECHANICAL:** Not required**PROTECTIVE GLOVES:** Chemical resistant.**EYE PROTECTION:** Safety glasses.**OTHER PROTECTIVE EQUIPMENT:** None.**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Store in a cool, dry place. Keep container tightly closed when not in use.**OTHER PRECAUTIONS:** Keep out of reach of children.

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**IX - Transportation Information (ground transportation only)**

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**DOT ID NUMBER:** None**DOT PROPER SHIPPING NAME:** None**DOT CLASS:** None**DOT PACKING GROUP:** None

The shipping information listed above applies only to non-bulk (< 119 gallons) containers of this product. This product may have more than one proper shipping name depending on packaging, product properties, & mode of shipment. If any alteration of packaging, product, or mode of transportation is further intended, different shipping names and labeling may apply.

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