

MATERIAL SAFETY DATA SHEET

Total Solutions
P.O. Box 240014
Milwaukee, WI 53224



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

REVISION DATE: March 1, 2010
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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>CAS #</u> |
|------------------|---------------------------|---------------------------|----------------------------|--------------------|------------|------------|--------------|
| | | | | <u>302</u> | <u>355</u> | <u>372</u> | |

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

V - Reactivity Data

STABILITY: Stable

INCOMPATIBILITY: None.

CONDITIONS TO AVOID: None.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce oxides of carbon.

HAZARDOUS POLYMERIZATION: Will not occur.

VI - Health Hazard Data

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.

VII - Spill or Leak Protection

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.

VIII - Special Protection Information

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.

IX - Transportation Information (ground transportation only)

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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