

MATERIAL SAFETY DATA SHEET

Bio Chem, Inc.
P.O. Box 521925
SLC, UT84152 - USA



GENERAL INFORMATION NUMBER: 1-800-653-9795

REVISION DATE: January 9, 2003
DATE OF ISSUE: January 9, 2003

I - Product Identification

Turf King

PRODUCT CODE: 0322

CHEMICAL FORMULATION: Liquid herbicide concentrate.

NFPA HAZARD IDENTIFICATION SYSTEM: **HEALTH:** 2 **FLAMMABILITY:** 2 **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> | |
| Petroleum Distillates | 70.0-80.0 | 100 ppm | 100 ppm | N | N | N | 64741-44-2 |
| Ethylbenzenes | < 1.00 | 100 ppm | 100 ppm | Y | N | Y | 100-14-4 |
| n-Butanol | 1.00-5.00 | 50 ppm (skin)C | 50 ppm (skin)C | Y | N | Y | 71-36-3 |
| Xylene | 1.00-5.00 | 100 ppm | 100 ppm | Y | N | Y | 1330-20-7 |
| Glycol Monophenyl Ether | 1.00-5.00 | N/E | N/E | N | N | Y | 122-99-6 |
| 1,2,4-Trimethylbenzene | 1.00-5.00 | 25 ppm | 25 ppm | N | N | Y | 95-63-6 |
| 2,4-bis(isopropylamino)-6-methoxy-S-triazine (Prometon) | 3.73 | N/E | N/E | N | N | N | 1610-18-0 |
| o-Xylene | 1.00-5.00 | 100 ppm | 100 ppm | Y | N | Y | 95-47-6 |

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/A

VAPOR PRESSURE (mm Hg): N/D

VAPOR DENSITY (AIR = 1): N/D

SOLUBILITY IN WATER: Emulsifies

APPEARANCE AND ODOR: Reddish-brown liquid; typical petroleum distillate odor.

SPECIFIC GRAVITY (WATER = 1): 0.87

VOC CONTENT (% by weight): < 90.0

EVAPORATION RATE (WATER = 1): > 1.0

pH: N/A

IV - Fire and Explosion Hazard Data

FLASH POINT (°F): 123

(TEST METHOD): Closed cup

FLAMMABLE LIMITS IN AIR (VOLUME %)

UPPER: N/D

LOWER: N/D

EXTINGUISHING MEDIA: Foam, carbon dioxide, dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should be equipped with full protective gear including self-contained breathing apparatus. Fire may produce hazardous vapors. Minimize amount of water used to fight fire, as runoff may cause pollution. Contain any runoff for proper disposal. Cool containers with water fog

UNUSUAL FIRE AND EXPLOSION HAZARD: Solvent vapors may flash back.

V - Reactivity Data

STABILITY: Stable

INCOMPATIBILITY: Strong oxidizing agents.

CONDITIONS TO AVOID: None

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: None

VI - Health Hazard Data

ROUTES OF ENTRY INHALATION: X **EYE CONTACT:** X **SKIN CONTACT:** X **INGESTION:** X

INGREDIENTS THAT ARE CONSIDERED BY OSHA, NTP, IARC TO BE SUSPECTED HUMAN CARCINOGENS: Xylene (CAS #1330-20-7), o-Xylene (CAS #95-47-6).

EFFECTS OF OVEREXPOSURE

IF IN EYES: Severe irritation, redness, tearing, blurred vision.

IF ON SKIN: Irritation, with prolonged or repeated exposure.

IF SWALLOWED: Gastrointestinal irritation, nausea, vomiting, diarrhea.

IF INHALED: Respiratory tract irritation, dizziness, weakness, headache, nausea, unconsciousness.

EMERGENCY AND FIRST AID PROCEDURES

IF IN EYES: Flush eyes and under eyelids with plenty of cool water for at least 15 minutes. Obtain medical attention.

IF ON SKIN: Remove contaminated clothing and lauder before re-use. Wash thoroughly with soap and water. If irritation persists, obtain medical attention.

IF SWALLOWED: Contact physician or poison control center immediately. Do not induce vomiting. Never give anything to an unconscious person.

IF INHALED: Remove person to fresh air. Perform artificial respiration if indicated. Obtain medical assistance.

VII - Spill or Leak Protection

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Ventilate area and remove all sources of ignition. Soak up spilled material with an inert absorbent material and place in a properly labeled container for disposal.

WASTE DISPOSAL METHOD: Consult local environmental authorities.

VIII - Special Protection Information

RESPIRATORY PROTECTION: Use with adequate ventilation. Do not breathe vapors or mists. If recommended Exposure Limits are exceeded wear a NIOSH approved respirator, following manufacturer's recommendations

VENTILATION

LOCAL: Recommended

MECHANICAL: Not required

PROTECTIVE GLOVES: Chemical resistant.

EYE PROTECTION: Chemical goggles or face shield.

OTHER PROTECTIVE EQUIPMENT: Emergency shower, eye wash station, and protective clothing.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a cool, dry place, away from heat or open flame. Keep container tightly closed when not in use. Do not contaminate water, feed or seed by storage or disposal.

OTHER PRECAUTIONS: Keep out of reach of children.

IX - Transportation Information (ground transportation only)

DOT PROPER SHIPPING NAME: None

DOT CLASS: None

DOT ID NUMBER: 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.

REVISION DATE: January 9, 2003

Prepared by: PMR

DATE OF ISSUE: January 9, 2003

This information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Total Solutions assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material such vendees or users assume all risks associated with the use of this material.