

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

U.S. Department of Labor
Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY

BVK-94 TOTAL WEED KILLER (280005)

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufactured For

Beaver Research Company

Address (Number, Street, City, State, and ZIP Code)

3700 E. Kilgore Road, Portage, MI 49002

HMIS RATING: 0-Minimal; 1-Slight; 2-Moderate; 3-Serious; 4-Extreme

HEALTH 3 REACTIVITY 0

FLAMMABILITY...1

Emergency Telephone Number

1-800-544-0133

Telephone Number For Information

1-800-544-0133

Date Prepared

04/22/99

Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

| Hazardous Components (Specific Chemical Identity; Common Name(s)) | OSHA PEL | ACGIH TLV | % (optional) |
|---|----------|----------------|--------------|
| Aliphatic & Aromatic Hydrocarbons | | 100ppm (ACGIH) | 92.93 |
| 2,4-Dichlorophenoxyacetic Acid, Isooctyl Ester | | 10MG/CU M | 1.09 |
| Bromacil | | 1ppm (ACGIH) | 0.98 |
| Diethylene Glycol Ethyl Ether | | Not Known | 5.00 |

See Section IX for further information on this product.

Section III - Physical/Chemical Characteristics

| | | | |
|------------------------------|----------|----------------------------|-------------------|
| Boiling Point | 430°F | Specific Gravity (H2O = 1) | 0.886 |
| Vapor Pressure (mm Hg) @25°C | <2 MM HG | % Volatile by Volume | 98% |
| Vapor Density (AIR = 1) | >1 | Evaporation Rate (Ether=1) | Slower than ether |

Solubility in Water

pH: N/A

Total VOC: 99%

Insoluble

Appearance and Odor

Dark amber liquid with hydrocarbon odor.

Section IV - Fire and Explosion Hazard Data

| | | | |
|---------------------------|------------------|-----|-----|
| Flash Point (Method Used) | Flammable Limits | LEL | UEL |
| >105-185°F (C.C. Method) | | 1.1 | 6.2 |

Extinguishing Media

Dry chemical, foam, CO2

Special Fire Fighting Procedures

Water may be effective in cooling fire-exposed containers.

Unusual Fire and Explosion Hazards

Vapors could ignite if exposed to sparks or open flame above 200°F.

Section V - Reactivity Data

| | | | | |
|-----------|----------|---|---------------------|------|
| Stability | Unstable | X | Conditions to Avoid | None |
| | Stable | | | |

Incompatibility (Materials to Avoid)

None

Hazardous Decomposition or Byproducts

On combustion, possible free chlorine and bromine.

| | | | | |
|--------------------------|----------------|---|---------------------|------|
| Hazardous Polymerization | May Occur | X | Conditions to Avoid | None |
| | Will Not Occur | | | |

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Section VI - Health Hazard Data

| | | | |
|--------------------|-------------|-------|------------|
| Route(s) of Entry: | Inhalation? | Skin? | Ingestion? |
| | Yes | Yes | Yes |

Health Hazards (Acute and Chronic)

Threshold Limit Value: Has not been determined, See Section II.

Skin: Causes skin irritation and is absorbed through the skin.

Eyes: Can cause moderate irritation, redness, tearing.

Inhalation: Excessive inhalation of vapors can cause nasal and respiratory irritation.

Ingestion: Can cause gastrointestinal irritation, nausea, vomiting, diarrhea and death.

| | | | |
|------------------|------|------------------|-----------------|
| Carcinogenicity: | NTP? | IARC Monographs? | OSHA Regulated? |
| N/A | No | No | No |

Signs and Symptoms of Exposure

May be nausea and/or vomiting and abdominal cramps and/or diarrhea. The risk of serious intoxication is greater in hot weather.

Medical Conditions Generally Aggravated by Exposure

Systemic and other effects: Excessive exposure may cause liver, kidney, gastrointestinal and muscular effects.

Emergency and First Aid Procedure

Skin: Wash with plenty of soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use. Get medical attention. **Eyes:** Flush with plenty of water, lifting upper and lower lids occasionally. Get medical attention. **Inhalation:** Remove victim to fresh air. Apply artificial respiration if indicated. **Ingestion:** Do not induce vomiting. Get medical attention. Note to physician: Aspiration hazard may contraindicate the use of gastric lavage.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

SMALL SPILLS: Absorb liquid on paper, oil dry or other absorbent material and allow to dry or evaporate under hood. Small quantities of this material may be absorbed on paper and burned in open areas.

LARGE SPILLS: Stop leak at the source and collect into a suitable container, then treat as a small spill.

Waste Disposal Method

Follow state and local regulations for disposal of large non-reclaimable spills.

Precautions to be Taken in Handling and Storage

Always store unused portion in original container with cap secure. Avoid temperature extremes. Handle as combustible liquid.

Health Precautions

Various animal tests have shown no reliably positive association between either 2, 4-D or bromacil exposure and cancer. However the solvents used to carry these agents have shown weak to moderately positive results in laboratory animal skin cancer studies. The dose levels and duration of exposure that induced tumors in the animal studies do not reflect anticipated human exposure. Therefore it is our opinion that this product does not present a human cancer risk when good personal hygiene practices are used, as recommended above to prevent skin irritation.

Other Precautions

As with all chemicals, use with due care according to label instructions and precautions.

Section VIII - Control Measures

Respiratory Protection (Specify Type)

A NIOSH/MSHA jointly approved air supplied respirator is necessary if TLV is exceeded.

| | | | | |
|-------------|---------------------|---------------------|---------|-----|
| Ventilation | Local Exhaust | to a fire safe area | Special | N/A |
| | Mechanical(General) | N/A | Other | N/A |

| | |
|-------------------|----------------|
| Protective Gloves | Eye Protection |
| Rubber gloves | Safety glasses |

Other Protective Clothing or Equipment

None required.

Work/Hygiene Practices

N/A