Material Safety Data Sheet

WeedEx* Dandelion Bar

*Trademark of TeraGro Inc.

In Case of Emergency Call CANUTEC: (613) 996 6666

1. Product Identification:

Product name: Weedex* Dandelion Bar
MSDS number: TG001
Effective date: April 23, 2008
Date printed: April 23, 2008

Supplier:
TeraGro Inc.
P.O. Box 137
Chestermere, Alberta,
Canada, T1X 1K8
(403) 285-0500
www.teragro.com

This product is regulated under authority of the Pest Control Products Act

2. Composition:

Component	CAS number	%(w/w)
2,4-dichlorophenoxyacetic (2,4-D) acid	000094-75-7	14.0
Other ingredients:		86.0
Including:		
Paraffin wax and liquids	Not available	
Hydrogenated tallow amides	61790-31-6	
Other tallow amides and fatty acids	61791-55-7	

3. Hazard Identification:

Emergency Overview:
This product is an off-white to cream-colored solid wax block contained in a cardboard package, with a slight phenolic odor. Rubbing this product onto eyes may cause eye irritation or corneal injury, which may be irreversible if not treated promptly.

Potential Health Effects:
Eyes: Wax rubbed into eyes will cause irritation, a burning sensation and permanent eye damage if not treated promptly.
Skin contact: Wax left on skin may cause irritation and redness.
Skin absorption: A single prolonged exposure is not likely to result in this product being absorbed in harmful amounts.
Ingestion: Small amounts swallowed incidental to normal handling are not likely to cause injury. Ingestion of larger amounts may cause injury. Signs of excessive exposure may be nausea, vomiting, abdominal cramps and/or diarrhea.
Inhalation: Vapors of this product are unlikely because of its physical properties.

4. First Aid Measures:

Eyes: Flush eyes with a gentle continuous stream of flowing water for fifteen minutes. Get medical attention at once.
Skin: Wash skin thoroughly with soap and water. Remove contaminated clothing as soon as possible.
Ingestion: Do not induce vomiting unless instructed to do so by qualified medical personnel. If gastric effects occur, get medical attention.
Inhalation: Remove individual to fresh air. If breathing difficulty occurs, get medical attention.

Note to physician:
There is no specific antidote. Employ supportive care. If a burn is present, treat as any thermal burn. Treatment should then be based on the judgment of the physician in response to reactions of the patient.

5. Fire-fighting Measures:

Flash point: >200°C.
Flammable limits: Not available
Auto-ignition temperature: Not available
Extinguishing media: Water fog, foam, CO_2, dry chemical
Sensitivity to mechanical impact/static discharge: Not available
Unusual fire and explosion hazards: Noxious fumes may be formed under fire conditions. Contain fire-fighting water for future disposal.
Fire-fighting equipment: Wear positive-pressure self-contained breathing apparatus and full turn-out gear.

6. Accidental Release Measures:

Collect broken packages and store them in secure containers until safe disposal can be arranged. Wash the affected area with a heavy-duty detergent and water. 2,4-D is an herbicide that acts on many broadleaf plants including many shrubs and trees. Avoid contaminating soil near desirable vegetation. Do not allow spilled material to contaminate water supplies.

Material Safety Data Sheet
WeedEx* Dandelion Bar
*Trademark of TeraGro Inc.
In Case of Emergency Call CANUTEC: (613) 996 6666

7. Handling and Storage:

Handling: Keep this product out of reach of children. This product may cause severe eye irritation. Avoid contact with eyes, skin and clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or the toilet.
Storage: Do not ship, store or display this product with foodstuffs, feed, seed, live plants, drugs or clothing. Replace Weedex Dandelion Bar in the original tray and carton for storage. Keep containers closed when not in use. Store in original containers only, away from direct sunlight or heat.

8. Exposure Controls, Personal Protection and Exposure Limits:

Exposure limits:
2,4-D acid: ACGIH TLV and OSHA PEL are 10 mg/m³
Paraffin wax and liquids: ACGIH TLV and OSHA PEL for wax fumes are 2 mg/m³; TLV and PEL for oil mists are 5 mg/m³, 10 mg/m³ STEL.
Tallow amides and fatty acids: Not available
Engineering controls: Under normal use/conditions no unusual measures are necessary because of the physical nature of this product. During manufacture and storage, provide general and/or local exhaust ventilation to maintain airborne levels below the exposure guidelines.
Breathing: Under normal use/conditions, no unusual measures are necessary because of the physical nature of this product. During manufacture and storage, atmospheric levels should be maintained below the exposure guideline.
Protective clothing: Wear clean body-covering clothing and impervious gloves.
Eyes: Contact lenses should not be worn by persons using this product. During manufacture, use chemical workers' goggles; an eye-wash fountain should be located in immediate work area.
Other protection: None specified

9. Physical and Chemical Properties:

Boiling point: Not available
Vapor pressure: Not available
Volatility: Not available
pH: Not available
Appearance: Appearance: Off-white to cream-colored solid wax block
Odor: Slight phenolic odor
Log octanol/water partition coefficient (Log Pow): 2.67 (for 2,4-D)
Specific gravity: 0.98
Evaporation rate: Not available
Solubility in water: Not applicable
Melting point: 62°C
Odor threshold: Not available

10. Stability and Reactivity:

Stability: Avoid excessive heat (melting point is 62°C).
Incompatibility: Avoid strong oxidizing agents, acids and metals.
Hazardous decomposition products: Ammonia, phosgene, hydrogen chloride, and oxides of carbon may be formed under fire conditions
Hazardous polymerization: Does not occur

11. Toxicological Information:

Skin absorption: Based on information on components of this formulation, skin absorption LD50 (rabbit) is estimated to be >7000 mg/kg.
Ingestion: Based on information on the components of this formulation, LD50 (rat) is estimated to be >2680 mg/kg.
Inhalation: Not available. Inhalation is not considered to be a hazard because of the physical nature of this formulation.
Sensitization: This product has caused skin sensitization in sensitive individuals.
Chronic effects: Excessive exposure to 2,4-D may cause liver, kidney, gastro-intestinal and muscular effects. Because of the relatively small proportion of 2,4-D in this formulation, these effects are unlikely.
Cancer: 2,4-D acid, paraffin or tallow amides and fatty acids did not cause cancer in long-term animal studies.
Birth defects: Birth defects resulting from exposure to 2,4-D are unlikely. Exposures having no effect on the mother had no effect on the fetus. Other effects were seen in the fetus only at doses that caused toxic effects to the mother. Paraffin or tallow amides and fatty acids are not known to cause birth defects.
Reproductive effects: Excessive dietary levels of 2,4-D caused decreased weight and survival in offspring in a rat reproduction study. Paraffin or tallow amides and fatty acids are not known to cause reproductive effects.
Mutagenicity: Animal mutagenicity studies and *in-vitro* mutagenicity studies were predominantly

negative for 2,4-D. Paraffin or tallow amides and fatty acids are considered to be not mutagenic.

12. Ecological Information:

2,4-D is considered not toxic to bees. No information for bee toxicity is available for paraffin, tallow amides and fatty acids, but they are not considered a hazard to bees because of the physical nature of this product. 2,4-D is considered moderately toxic to aquatic organisms and slightly toxic to birds on an acute or chronic basis. Bio-concentration potential of 2,4-D is low. No information for aquatic or avian toxicity or bio-concentration potential is available for paraffin wax, tallow amides and fatty acids.

Degradation and Metabolism:

For 2,4-D:

In soil: Microbial degradation involves hydroxylation, decarbolation, cleavage of the acid side-chain and ring-opening. Half-life in soil is <7 days. For a review of environmental aspects of 2,4-D see *Environmental Health Criteria 84* (WHO, 1989). Rapid degradation prevents significant downward movement in soil under normal conditions.

In plants: Metabolism involves hydroxylation, decarbolation, cleavage of the acid side-chain, and ring-opening.

In animals: In rats, following administration, elimination is rapid, and mainly as the unchanged substance. Following single doses of up to 10 mg/kg, excretion is almost complete after 24 hours, although, with greater doses, complete elimination takes longer. The maximum concentration in organs is reached after about 12 hours.

For tallow amides and fatty acids:

In a “closed jar” test, tallow amides and fatty acids degraded in 28 days to naturally occurring substances.

13. Disposal Considerations:

Individual part or whole Weedex Dandelion Bars may be disposed of with domestic waste. Amounts greater than that must be disposed of in secure landfills or by registered use, in compliance with all applicable federal, provincial, state and municipal laws and regulations. If these wastes cannot be disposed of according to label instructions, contact the Federal or Provincial Departments of Environment for guidance.

14. Transport Information:

Transportation of Dangerous Goods Act classification for this product may be obtained by contacting TeraGro Inc. at 403 285 0500.

15. Regulatory Information:

Pest Control Products Act registration number: 11852
For information phone: 403 285 0500
Master reference: DAS 000690, SOL 18118
MSDS status: Revised MSDS
Replaces MSDS: March 5, 2007

16. Other Information:

National Fire Code classification: Not regulated
NFPA ratings: Health: 2; Flammability: 1; Reactivity: 0.
Notice: The information contained in this Material Safety Data Sheet is presented in good faith and is believed to be accurate as of the effective date shown above. However, no warranty, expressed or implied is given.