SAFETY DATA SHEET

19/5/09

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

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Product Name: **THISTLEX HERBICIDE : MAPP 11533 (PCS 02027)**

LV70: 81043 Issue Date: June 02 Ref: FGR15
Revised: Mar. 09 (Section (s) 3, 4, 8, 12, 15, 16)
For questions about this SDS, contact: SDSQuestion@dow.com

2. HAZARDS IDENTIFICATION

Risk of serious damage to eyes. Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Dangerous components (see section 16 for complete R-phrases):

			CAS	EC No
Clopyralid triethylamine salt	24.3%	Xi,N; R41-51/53	01702-17-6	216-935-4
Triclopyr triethylamine salt	26.6%	Xi; R41-43-52/53	57213-69-1	260-625-1
Ethanol #	<5%	F; R11	00064-17-5	200-578-6
Ethylenediamine tetra-acetic acid	<5%	Xi; R36	00060-00-4	200-449-4
Triethylamine #	<5%	F,C; R11-20/21/22-35	00121-44-8	204-469-4
Inert ingredients	Balance			
Composition Code	GF-210			

Substance(s) with an Occupational Exposure Limit

4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Ingestion
Do not induce vomiting. Call a physician. The decision of whether to induce vomiting or not should be made by a physician.

Eye Contact
Wash eyes immediately and continuously with water for 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Seek medical attention immediately, preferably from an ophthalmologist. Wash eyes enroute if possible. Eye wash fountain should be located in immediate work area.

Skin Contact
Remove contaminated clothing. Wash contaminated clothing before re-use. Wash off in flowing water or shower, use soap if available.

Inhalation
Remove to fresh air. Consult a physician.

Note to Physician
Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

Emergency Personnel Protection
If potential for exposure exists refer to Section 8 for specific personal protective equipment.

5. FIRE-FIGHTING MEASURES

Extinguishing Media
Water fog or fine spray. Carbon dioxide. Dry chemical powder. Foam.

Hazardous Combustion Products
During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Protection of Firefighters
Wear protective clothing and use self-contained breathing apparatus.

Additional Information
Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Wear appropriate safety clothing and eye/face protection (see Section 8).

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Environmental Precautions
Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

Methods of Cleaning Up
Soak up with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

7. HANDLING AND STORAGE

Handling
Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work. Avoid contact with eyes. May cause severe irritation with corneal injury.

Storage
Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Triclopyr: Dow AgroSciences IHG is 4 mg/m^3 (skin).
Clopyralid: Dow AgroSciences IHG is 10 mg/m^3.
Triethylamine: ACGIH Threshold Limit Value (TLV) is 1 ppm (TWA)

Triethylamine (UK & IRELAND):
UK: Time-weighted average (TWA) is 8 mg/m^3 (2 ppm)
Short-term exposure limit (STEL)is 17 mg/m^3 (4ppm)
Can be absorbed through skin

IRELAND: Irish 8-hour OEL Time-weighted average (TWA) is 4.2 mg/m^3 (1 ppm)
Irish 15 minute OEL Short-term exposure limit (STEL)is 12mg/m^3 (3 ppm)
Irish skin designationd: has the capacity to penetrate intact skin on contact and be absorbed into the body

Ethanol (UK & IRELAND):
UK: Time-weighted average (TWA) is 1920 mg/m3 (1000 ppm)

IRELAND: Irish 8-hour OEL Time-weighted average (TWA) is 1900 mg/m^3 (1000 ppm)

Engineering Controls
Good general ventilation should be sufficient for most conditions.
Local exhaust ventilation may be necessary for some operations.

Respiratory Protection
When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator.
For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Hand/Skin Protection
For brief contact, no precautions other than clean body-covering clothing and chemical resistant gloves should be needed. Use chemical resistant gloves classified under standard EN 374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Nitrile. Polyvinyl chloride ("PVC" or "vinyl"). Examples of acceptable glove barrier materials include: Neoprene. Avoid gloves made of: PVA.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.
For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

Eye/Face Protection
Use chemical goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: light yellow
Rel. density (water=1)	: 1.15 g/cm^3 (approx.)
Flash point	: >87 deg.C (TOC)
pH	: 8.22
Water solubility	: soluble
Surface tension	: 37.5 mN/m (25 deg.C)
Autoflammability	: >420 deg.C

10. STABILITY AND REACTIVITY

Chemical Stability
Is stable under normal storage conditions.

Conditions to Avoid
None determined.

Materials to Avoid
Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products
None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

Ingestion
The oral LD_{50} for rats is >2000 mg/kg.
Low toxicity if swallowed.

Skin Contact
The dermal LD_{50} for rats is >5000 mg/kg.
Prolonged skin contact is unlikely to result in absorption of harmful amounts.
Prolonged or repeated exposure may cause slight skin irritation.

Sensitisation
Non-sensitising to guinea pig skin.

Eye Contact
May cause severe irritation with corneal injury.

Inhalation
No adverse effects anticipated by this route of exposure incidental to proper handling.

Additional Information
Not carcinogenic. Not mutagenic. Not toxic for reproduction.

12. ECOLOGICAL INFORMATION

Persistence and Degradability
Assessment largely or completely based on data for active ingredient.

Clopyralid: The principle route of degradation is microbial and will occur readily. Half-life in soils is dependent on soil type and conditions and is approximately 12-62 days.

Triclopyr: Half-life in soils is dependent on soil type and conditions and is approximately 6-52 days.

Aquatic Toxicity
Material is not harmful to fish on an acute basis (LC_{50} >100mg/L).
Material is not harmful to aquatic invertebrates on an acute basis (EC_{50} >100 mg/L).
Material is harmful to algae (10 mg/l <IC_{50} <100 mg/l).

Avian Toxicity
Material is slightly toxic to birds on an acute basis (500 mg/kg <LD_{50} <2000 mg/kg).

13. DISPOSAL CONSIDERATIONS

Harmful to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.

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14. TRANSPORT INFORMATION

Sample shipment not allowed by mail. Product is not classified for any mode of transportation.

15. REGULATORY INFORMATION

European Inventory of Existing Commercial Chemical Substances (EINECS)
The components of this product are on the EINECS inventory or are exempt from inventory requirements.

Hazard Symbol : Xi - Irritant

Risk Phrases : Risk of serious damage to eyes (R41).
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R52/53).

Safety Phrases : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S26).
This material and its container must be disposed of in a safe way (S35).
Wear eye/face protection (S39).

To avoid risks to man and the environment, comply with the instructions for use.

Refer to the Product Label for full Local Regulatory Authority label precautions.

16. OTHER INFORMATION

Risk-phrases in Section 3
R11 - Highly flammable.
R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.
R36 – Irritating to eyes.
R35 - Causes severe burns.
R41 - Risk of serious damage to eyes.
R43 - May cause sensitisation by skin contact.
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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