*Interprovincial Cooperative Limited*

# DICHLORPROP DX MATERIAL SAFETY DATA SHEET

## 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Dichlorprop DX*
Product Use: Phenoxy (Broadleaf) Herbicide
Product Number: 29664

Manufacturer /Supplier: INTERPROVINCIAL COOPERATIVE LTD.
945 Marion St.
Winnipeg, Manitoba
R2J 0K7 www.ipco.ca

Effective Date: March 25/2014

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

## 2: HAZARD IDENTIFICATION

**Effects of Overexposure:**

| | |
|---|---|
| Route of Exposure: | Inhalation, eye contact, skin contact, ingestion. |
| Inhalation | May cause headaches, nausea, and lack of coordination. May be harmful if inhaled... |
| Eye Contact | Mildly irritating. |
| Skin Contact | Warning Skin irritant. Potential skin sensitizer. |
| Ingestion | May be harmful if swallowed. Aspiration can be a hazard if this material is swallowed. Will cause vomiting, nausea, diarrhea |

## 3: COMPOSITION AND INFORMATION ON INGREDIENTS

| COMPONENT | CAS NUMBER | % (W/W) |
|---|---|---|
| (2, 4-dichlorophenoxy) acetic acid, 2-ethylhexyl ester | 25168-26-7 | 39.52 – 41.96 |
| 2-(2, 4-dichlorophenoxy) Propinoic acid, 2-ethylhexyl ester | 53404-36-2 | 41.77 – 44.35 |
| Hydrotreated light petroleum distillates | 64742-47-8 | 8.97 – 9.53 |
| Other ingredients | | 6.74 – 7.16 |

Ingredients not listed are proprietary or non-hazardous

## 4: FIRST AID MEASURES

In case of poisoning, call a physician or poison control centre IMMEDIATELY.

| | |
|---|---|
| Inhalation: | Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice. |
| Ingestion: | Call a poison control centre or doctor IMMEDIATELY for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person |
| Skin: | Flush skin with running water, and then continue flushing with running water for 5 - 10 minutes. Start flushing while removing contaminated clothing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY. |

| | |
|---|---|
| Eyes: | Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.<br>Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention |
| Emergency Medical Care: | No specific antidote. Treatment of any systemic intoxication should be primarily symptomatic and supportive. Contains petroleum distillates. Vomiting may cause aspiration pneumonia. Do not induce vomiting. This product may cause mild irritation to the eyes. Overexposure to 2, 4-D may cause coughing, burning, dizziness or temporary loss of muscle co-ordination. Other possible effects of overexposure include fatigue, muscle weakness or nausea. |

## 5: FIRE-FIGHTING MEASURES

| | |
|---|---|
| Unusual Fire & Explosion Hazards: | Toxic fumes under high temperature conditions. Contain water from fire fighting to prevent entry into water supplies... |
| Extinguishing Media: | Carbon Dioxide, Foam, Water Fog, and Dry Chemical |
| Special Oxidizing Material Hazards: | Not Established |
| Hazardous Combustion Products: | Noxious fumes under fire conditions. |
| Special Fire Fighting Procedures: | Use water spray to cool fires exposed containers or structures. Use water spray to disperse vapours; re-ignition is possible. Use self-contained breathing apparatus and protective clothing. |

## 6: ACCIDENTAL RELEASE MEASURES

In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

## 7: HANDLING AND STORAGE

Store in a cool, well-ventilated area. Keep away from heat, sparks and filling of containers. Keep away from children; prevent contact with eyes, skin, and clothing. Do not store near fertilizers, foodstuffs, seed, insecticides or fungicides.

Do not contaminate irrigation ditches or domestic water supplies. If this happens notify police and local authorities.

## 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Exposure Limits:**

(2, 4-dichlorophenoxy) acetic acid, 2-ethylhexyl ester

| | |
|---|---|
| LD50-ORAL: | 650 mg/kg Rat |
| LD50-DERMAL: | > 4000 mg/kg Rabbit |
| T.L.V. (ACGIH): | Not Established |
| LC50: | > 6.36 mg/L (4 hrs) Rat |

2-(2, 4-dichlorophenoxy) propionic acid, 2-ethylhexyl ester

| | |
|---|---|
| LD50-ORAL: | 824 mg/kg Rat |
| LD50-DERMAL: | > 4000 mg/kg Rabbit |
| T.L.V. (ACGIH): | Not Established |
| LC50: | > 6.36 mg/L (4 hrs) Rat |

Hydrotreated light petroleum distillates

| | |
|---|---|
| LD50-ORAL: | > 15, 000 mg/kg Rat |
| LD50-DERMAL: | > 3160 mg/kg Rabbit |
| T.L.V. (ACGIH): | Total Hydrocarbones: 1200 mg/$m^3$ |
| LC50: | Not Established |
| Special Engineering Controls: | Local exhaust ventilation required. |
| Eye Protection: | CSA approved safety glasses with side shields or goggles. |
| Respiratory Protection: | A NIOSH/MSHA approved air-purifying respirator equipped with organic vapor cartridges near or below TLV. Air supplied respirator above TLV or unknown concentrations. |
| Hand and Arm: | PVC or rubber gloves. |
| Feet: | Rubber boots. |
| Body: | Coveralls. |
| Other Personal Protection: | Recommendations listed above indicate the type of equipment which will provide protection against overexposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace. |

## 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Physical State: | Liquid |
| Appearance & Odour: | Brown, Colour “Solvent” odour |
| Specific Gravity: | (@ $20^0$c): 1.1000 |
| Vapour density: | Hydrotreated light petroleum distillates: > 7.5 (Air =1) |
| Solubility in water: | Emulsifies |
| Solubility in liquids: | Not established |
| Freezing point: | < $0^0$c |
| % volatile by volume: | Not applicable |
| Boiling point: | Hydrotreated light petroleum distillates: 237 - 277$^0$C |
| Odour threshold (ppm): | Not established |
| Coefficient of water/oil distribution: | Not applicable |
| Vapour pressure: | Hydrotreated light petroleum distillates: 0 Kpa @ 20℃ |
| Evaporation rate: | Hydrotreated light petroleum distillates: < 0.001 (n-butyl acetate = 1) |
| pH: (1% Sol’n): | 4.5 |
| Viscosity: | 43.2 cps at 20℃ |
| Flash Point & Method: | ($^0$C): > 93.3 (Tag Closed Cup) |
| Flammable Limits (% in air): | Lower: 0.5<br>Upper: 4.8 |
| Autoignition Temperature | Hydrotreated light petroleum distillates: 243℃ |

## 10: STABILITY AND REACTIVITY

| | |
|---|---|
| Decomposition Temp: | Not Established |
| Stability: | Stable under normal conditions. |
| Materials to Avoid: | Acidic, basic or oxidizing agents |
| Hazardous Decomposition Products: | Hydrogen Chloride, Carbon Dioxide, Carbon Monoxide, and other chloride compounds |
| Hazardous Polymerization or Condensation: | Will not occur. |
| Conditions to Avoid: | High temperatures, sparks, open flames, and all other sources of ignition. |

## 11: TOXICOLOGICAL INFORMATION

| | | |
|---|---|---|
| Skin Absorption: | Acute dermal LD50 (Rat) | >2000 mg/kg. |
| Ingestion: | Acute oralLD50 (rat) | 926 mg/kg. |
| Inhalation: | LC50 | 2.60 mg/L (4 hr, nose-only exposure) Rat |
| T.W.A. (ACGIH): | Total Hydrocarbons: | 1200 mg/$m^3$ |

Chronic Health Hazards: Prolonged or repeated exposure may lead to kidney or central nervous system symptoms.

Mutagenicity Data: There have been some positive and some negative studies, but the weight of evidence is that 2,4-D is not mutagenic. Studies on Dichlorprop have been inconclusive with some positive and some negative results. Products similar to the hydrocarbon component are not considered to be mutagenic.

Carcinogenicity Data: The International Agency for Research on Cancer (IARC) lists exposure to chlorophenoxy herbicides as a class 2B carcinogen, the category for limited evidence for carcinogenicity in humans. However, more current lifetime feeding studies in rodents did not show carcinogenic potential. Products similar to the hydrocarbon component are not considered to be mutagenic and are unlikely to cause tumors.

Teratogenicity Data: Studies in laboratory animals with 2,4-D have shown decreased fetal body weights and delayed development in the offspring, but these findings were at doses toxic to mother animals. A rat study on Dichlorprop resulted in fetal mortality, decreased fetal body weight, decreased body weight gain and developmental delays at the highest dose, which was also toxic to mother animals. Products similar to the hydrocarbon component are not considered to be developmental toxicants.

Reproductive Effects: No impairment of reproductive function attributable to 2, 4-D or Dichlorprop has been noted in laboratory animal studies.

## 12: ECOLOGICAL INFORMATION

**Data on 2, 4-D 2-EHE or EC formulation**:
96-Hour LC50 (mg/L): 7.2 (Rainbow Trout)
96-Hour LC50 (mg/L): > 5 (Bluegill)
48-Hour EC50 (mg/L): > 5 (Daphnia)
Oral LD50 (mg/kg): > 5620 (Bobwhite Quail)
Dietary LC50 (ppm): > 5620 (Mallard Duck)

**Data on Dichlorprop 2-EHE**:
96-Hour LC50 (mg/L): 7.9 (Rainbow Trout)
96-Hour LC50 (mg/L): 7.7 (Bluegill)

**Chemical Fate Information:** In representative laboratory and field studies, 2, 4-D 2-EHE rapidly hydrolyzed to parent acid. The typical half-life of the resultant 2, 4-D acid ranged from a few days to a few weeks.

## 13: DISPOSAL CONSIDERATIONS

Dispose of waste materials in an approved incinerator or waste treatment/disposal facility in accordance with applicable regulations. Do not dispose of wastes in local sewer or with normal waste

## 14: TRANSPORT INFORMATION

This product is Not Regulated under regulations of the Transport of Dangerous Goods Act.

## 15: REGULATORY INFORMATION

| | |
|---|---|
| Pest Control Products Act | |
| Registration Number: | 29644 |
| For Information Phone: | 204-233-3461 |
| MSDS Status/ | |
| Revised Sections: | Section 9, Flash Point |
| Replaces MSDS Dated: | July 8, 2013 |

## 16: OTHER INFORMATION

| | |
|---|---|
| WHMIS Ratings: | B3, D2B |
| Notice: | The enclosed information is supplied as a customer service and is provided in good faith. Although it has been based on data drawn from sources deemed to be reliable, IPCO cannot guarantee its accuracy and assumes no responsibility for conditions resulting from its use. |