

1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Bolster Desiccant
Product Use: Desiccant and Herbicide
Manufacturer/Supplier: INTERPROVINCIAL COOPERATIVE LTD.
945 Marion St.
Winnipeg, Manitoba
R2J 0K7
www.ipco.ca
Effective Date: January 17, 2017

2: HAZARD IDENTIFICATION

Hazard Classification(s): Classification in accordance with UN GHS Version 5.
Acute Toxicity (Inhalation) – Category 3
Acute Toxicity (Oral) – Category 4
Aquatic Acute Toxicity – Category 1
Aquatic Chronic Toxicity – Category 1
Corrosive to Metals – Category 1
Eye Irritation – Category 2B
Specific Target Organ Toxicity (STOT) Single Exposure – Category 3
Specific Target Organ Toxicity (STOT) Repeated Exposure – Category 1

Hazard Symbol(s):



Signal Word: DANGER

Hazard Statement(s):
H290 – May be corrosive to metals.
H302 – Harmful if swallowed.
H320 – Causes eye irritation.
H331 – Toxic if inhaled.
H335 – May cause respiratory irritation.
H372 – Causes damage to organs through prolonged or repeated exposure.
H400+H410 – Very toxic to aquatic life with long lasting effects

Precautionary Statement(s):

Prevention:
P102 – Keep out of reach of children.
P234 – Keep only in original packaging.
P260 – Do not breathe dust/fume/gas/mist/vapours/spray.
P264 – Wash thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P271 – Use only outdoors or in a well-ventilated area.
P273 – Avoid release to the environment.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.

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Response:	<p>P301+P312 – IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.</p> <p>P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P311 – Call a POISON CENTER/doctor if exposed.</p> <p>P314 – Get medical advice/attention if you feel unwell.</p> <p>P321 – Specific treatment: See Section 4 of this SDS.</p> <p>P330 – Rinse mouth.</p> <p>P337+P313 – If eye irritation persists: Get medical advice/attention.</p> <p>P390 – Absorb spillage to prevent material damage.</p> <p>P391 – Collect spillage.</p>
Storage:	<p>P403+P233 – Store in a well ventilated place. Keep container tightly closed.</p> <p>P405 – Store locked-up.</p> <p>P406 – Store in a corrosion resistant plastic, plastic-lined steel, stainless steel or fiberglass container.</p>
Disposal:	P501 – Dispose of contents/container to an approved waste disposal plant.
Other Hazards Which do not Result in GHS Classification:	To avoid risk to human health and the environment, comply with the instructions for use. Flammable hydrogen gas may be formed on contact with aluminum. If spilled and allowed to stand, product can dry to a highly irritating dust

3: COMPOSITION AND INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	CONCENTRATION (W/W)
6,7-dihydrodipyrido(1,2-a-2'-1'-c)pyrazinedium dibromide (Diquat dibromide)	85-00-7	39.5% (448.3 g/L)

4: FIRST AID MEASURES

Eye contact:	Flush eyes with clean water, holding eyelids apart for a minimum of 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eyes. Call a poison control centre or doctor for treatment advice. IMMEDIATE MEDICAL ATTENTION IS REQUIRED.
Skin contact:	Immediately remove contaminated clothing and wash skin, hair and fingernails thoroughly with soap and water. Flush skin with running water for a minimum of 15-20 minutes. Call a poison control centre or doctor for treatment advice.
Inhalation:	Move victim to fresh air. If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth, if possible. Call a poison control centre or doctor for treatment advice.
Ingestion:	If swallowed, immediately contact a poison control centre, doctor or nearest hospital for treatment advice. Have person sip a glass of water if able to do so. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless directed by a physician or a poison control centre. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer water.

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Notes to physician:	Administer either activated charcoal (100 g for adults or 2 g/kg body weight in children) or Bentonite Clay (100 to 150 g for adults or 2 g/kg body weight for children), mixed with a purgative (MgSO ₄ or mannitol). Maintain and monitor electrolyte and fluid status daily. Consider hemodialysis or hemoperfusion using charcoal column. Note: The use of gastric lavage without administration of an absorbent has not shown any clinical benefit. Eye contact: Symptoms may develop gradually. Severe damage may be caused by apparently trivial contact and healing may be delayed. Medical supervision should continue until complete healing has occurred. To be effective, treatment for ingestion of the product must begin IMMEDIATELY. Treatment consists of binding the active ingredient, diquat, in the gut with suspensions of activated charcoal or bentonite clay, administration of cathartics to enhance elimination and removal of diquat from the blood by charcoal hemoperfusion or continuous hemodialysis.
Symptoms/Effects, Acute and Delayed:	Inflammation of the mouth, throat and esophagus. Gastrointestinal discomfort. Diarrhea. Toxic if inhaled. Harmful if swallowed. Causes eye irritation. Symptoms may develop gradually. Severe damage may be caused by apparently trivial contact. May cause respiratory irritation.

5: FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Use foam, carbon dioxide, dry powder, halon extinguishant or water fog or mist. Cool closed containers exposed to fire with water spray.
Unsuitable extinguishing media:	Do not use a solid water stream as it may scatter and spread the fire.
Protective equipment and precautions for firefighters:	Wear full protective clothing and self-contained breathing apparatus. Evacuate non-essential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water run-off can cause environmental damage. Contain run-off water with, for example, temporary earth barriers.
Hazardous combustion products:	Flammable hydrogen gas may be formed on contact with aluminum. If the concentrate is spilled and allowed to stand, it can dry to a highly irritating dust. Can decompose at high temperatures forming toxic gases. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

6: ACCIDENTAL RELEASE MEASURES

Personal precautions:	Control the spill at its source. Clean up spills immediately, observing precautions outlined in Sections 7 and 8. Use adequate ventilation and equipment and wear clothing as described in Section 8 and/or the product label.
Environmental precautions:	Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Spillages or uncontrolled discharges into watercourses must be reported to the appropriate regulatory body.
Methods for containment:	Pump or scoop large amounts of liquid into a disposable container. Absorb remaining liquid or smaller spills with clay, sand or vermiculite. Scoop or seep up material and place into a disposal container. Wash area with detergent and water.

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Methods for cleaning up: Pick up wash liquid with additional absorbent and place into a compatible disposal container. On soils, small amounts will naturally decompose. For large amounts, skim off the upper contaminated layer and collect for disposal. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposal.

7: HANDLING AND STORAGE

Handling: This product reacts with aluminum to produce flammable hydrogen gas. Do not mix or store in containers or systems made of aluminum or having aluminum fittings. Spray solutions should not be mixed, stored or applied in containers other than plastic, plastic-lined steel, stainless steel or fiberglass. If the concentrate is spilled and allowed to stand, it can dry to a highly irritating dust. KEEP OUT OF REACH OF CHILDREN. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Avoid breathing vapours, dust or spray mist. Wear full protective clothing and equipment (see Section 8). After work, rinse gloves and remove protective equipment, and wash hands thoroughly with soap and water after handling, and before eating, tobacco use, drinking, applying cosmetics or using the toilet. Wash contaminated clothing before re-use and separate from household laundry. Keep containers closed when not in use. Protect product, wash or rinse water, and contaminated materials from uncontrolled release into the environment, or from access by animals, birds or unauthorized people.

Storage: Store in original container in a well-ventilated, cool, dry, secure area. Protect from heat, sparks and flame. Do not expose sealed containers to temperatures above 40 °C. Refer to the product label for specific storage recommendations, including minimum storage temperature and freeze/thaw stability. Keep separate from other products to prevent cross contamination. Rotate stock. Clean up spilled material immediately.

8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits for Product:	Component	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen	WHMIS†
	Diquat dibromide	Not established	0.5 mg/m3 (inhalable); 0.1 mg/m3 (respirable)	0.5 mg/m3 TWA (total) (AB/BC/ON/QC); 0.1 mg/m3 TWA (respirable) (AB/BC/ON/QC)	No	Not established

† Material listed in Ingredient Disclosure List under the Hazardous Products Act

Special Engineering Controls: If necessary, ensure work areas have ventilation, containment, and procedures sufficient to maintain airborne levels below the TLV (threshold limit value). Warehouses, production areas, parking lots and waste holding facilities must have adequate containment to prevent environmental contamination. Provide separate shower and eating facilities.

Eye Protection: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

Respiratory Protection: A particulate filter respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH certified respirator with any N, R, P or HE

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filter. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Skin: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Other Personal Protection: Avoid breathing dust, vapours or aerosols. Avoid contact with eye, skin and clothing. Wash thoroughly after handling and before eating, drinking, applying cosmetics or handling tobacco.

9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance & Odour:	Dark Brown & Odourless
Specific Gravity (@ 20°C):	1.2000 g/mL
Vapour density:	Not Available
Solubility in water:	Miscible
Solubility in liquids:	Not Available
Freezing point:	- 7°C
% volatile by volume:	Not Available
Boiling point (°C):	102.7°C at 715mmHg
Odour threshold (ppm):	Not Available
Coefficient of water/oil distribution:	-4.6
Vapour pressure (mm Hg):	7.5×10^{-8} @ 20°C
Evaporation rate:	Not Available
pH:	4 – 8
Viscosity:	2.3 cps @ 20°C
Flash Point & Method (°C):	Not Available
Flammable Limits (% in air):	Not Applicable
Autoignition Temperature (°C):	Not Available

10: STABILITY AND REACTIVITY

Chemical stability:	Stable under normal use and storage conditions
Conditions to avoid:	Do not mix or store in containers or systems made of aluminum or having aluminum fittings. Spray solutions should not be mixed, stored, or applied in containers other than plastic, plastic-lined steel, stainless steel or fiberglass.
Incompatible materials:	Corrosive to aluminum. Strong alkalis and anionic wetting agents (e.g. alkyl and alkylaryl sulfonates).
Hazardous decomposition products:	Flammable hydrogen gas may be formed on contact with aluminum. Can decompose at high temperatures forming toxic gases. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.
Possibility of hazardous	This product reacts with aluminum to produce flammable hydrogen gas. If the

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reactions: concentrate is spilled and allowed to stand, it can dry to a highly irritating dust.

11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Dermal, inhalation, oral.

Symptoms of Acute Exposure: Inflammation of the mouth, throat and esophagus. Gastrointestinal discomfort. Diarrhea. Toxic if inhaled. Harmful if swallowed. Causes eye irritation. May cause respiratory irritation.

Potential Health Effects: This material may irritate human eyes following contact and could cause prolonged (weeks) impairment of vision. The degree of injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment. Symptoms may include pain, tearing, swelling, redness and blurred vision.

Acute Toxicity/Irritation Studies (Finished Product):

Ingestion: Moderately Acutely Toxic
Oral (LD50 Female Rat) 886 mg/kg body weight

Dermal: Low Acute Toxicity
Dermal (LD50 Rat) > 4,000 mg/kg body weight

Inhalation: Slightly Acutely Toxic
Inhalation (LC50 Rat) > 0.62 mg/L air – 4 hours

Eye Contact: Mildly Irritating (Rabbit)

Skin Contact: Slightly Irritating (Rabbit)

Skin Sensitization: Not a Sensitizer (Guinea Pig)

Specific Target Organ Toxicity (STOT) Single Exposure:
Diquat dibromide: May cause respiratory irritation.

Specific Target Organ Toxicity (STOT) Repeated Exposure:
Diquat dibromide: Ocular effects (cataracts) have been reported following long term exposure of laboratory animals.

Carcinogenicity:
Diquat dibromide: Did not show carcinogenic effects in animal experiments.

Reproductive Toxicity:
Diquat dibromide: Did not show reproductive toxicity effects in animal experiments.

Mutagenicity:
Diquat dibromide: Did not show mutagenic effects in animal experiments.

Aspiration Hazard:
Diquat dibromide: Not classified as an aspiration hazard.

Toxicity of Other Components:
The acute toxicity test results reported in Section 11, above, for the finished product take into account any acute hazards related to the "other components" in the formulation.

12: ECOLOGICAL INFORMATION

Diquat dibromide	Invertebrates (Water Flea) 48-hour LC50/EC50 1.2 ppm
	Fish (Rainbow Trout) 96-hour LC50/EC50 6.1 ppm
	Birds (5-day dietary – Mallard Duck) LC50/EC50 1,570 ppm
	Algae EC50 96-hour 21 g/L

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Bees LD50 (oral) 120-hour 22 g/bee

Worms LC50 14-day 243 mg/kg

Persistence and Degradability: Persistent in soil. Non-Persistent in water; partitions to sediment.
Bioaccumulation/Accumulation: BCF < 500; does not bioaccumulate
Mobility in environmental media: Low mobility in soil.

13: DISPOSAL CONSIDERATIONS

Do not reuse containers unless they are specifically designed to be refillable. Empty container retains product residue. Dispose of empty containers in accordance with local regulations. Consult provincial environment ministry for advice on waste disposal. Industrial/commercial waste may be handled at licensed facilities only. Waste shipments must be securely packaged and properly labelled. Only licensed carriers may be used, and proper documents must accompany the shipment.

14: TRANSPORT INFORMATION

TDG Classification – Road/Rail:
UN Number: UN 1760
Proper Shipping Name: Corrosive Liquid, N.O.S. (Diquat dibromide).
Transport Hazard Class: Class 8
Packing Group: PG III
Environmental Hazards: Corrosive liquid.

15: REGULATORY INFORMATION

Hazardous Products Act Information: This product has been classified in accordance with the amended Hazardous Products Act and the Hazard Criteria of the Hazardous Products Regulations (HPR), and the SDS contains all the information required by the HPR.

Hazardous Products Act Information: WHMIS 2015 Classification
This product is exempt under WHMIS 2015

Pest Control Products (PCP) Act Registration No.: 32540
This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act (PCPA). These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Read the approved PCPA label prior to using or handling this pest control product.

16: OTHER INFORMATION

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.

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MSDS Status/Revised Sections:

Replaces MSDS Dated: New

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Full Text of Abbreviations:

AB – Province of Alberta
BC – Province of British
Columbia
BCF – Bioconcentration factor
EC50 – Effective
concentration, 50%
GHS – Globally Harmonized
System of Classification and
Labeling of Chemicals
LC50 – Lethal concentration,
50%
LD50 – Lethal dose, 50%
IARC – International Agency
for Research on Cancer

NTP –National Toxicology Program
ON – Province of Ontario
OSHA – Occupational Safety & Health Administration
PEL – Permissible Exposure Limit
TDG – Transportation of Dangerous Goods
TLV – Threshold Limit Value
QC – Province of Quebec
SDS – Safety Data Sheet
WHMIS – Workplace Hazardous Materials Information System

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