

**SECTION 1: IDENTIFICATION**

PRODUCT IDENTIFIER: **DURAFLEX DFS/DFC**  
OTHER MEANS OF IDENTIFICATION: None  
RECOMMENDED USE: Soil cement additive  
RESTRICTIONS ON USE: None known  
SUPPLIER IDENTIFIER: **Di-Corp**  
**8750-53 Ave**  
**Edmonton, AB T6E 5G2**  
**780-440-4923**  
**780-468-4064**  
EMERGENCY PHONE NUMBER 24hr: **780-468-4064**  
TRANSPORTATION EMERGENCY NUMBER: **1-888-CANUTEC (226-8832), 613-996-6666 or \*666 on a cellular phone**

**SECTION 2: HAZARD IDENTIFICATION**

CLASSIFICATION: Skin corrosion – Category 1A  
Serious eye damage – Category 1  
Carcinogenicity (inhalation) – Category 1A  
STOT – SE – (respiratory tract irritation) - Category 3  
STOT – RE – Category 1

LABEL SYMBOLS:



SIGNAL WORD:

**DANGER**

Causes severe skin burns and eye damage.

CLASSIFICATION INFORMATION:

May cause cancer if inhaled.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure.

OTHER HAZARDS:

None known

**PRECAUTIONS**

Obtain special instruction before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust.

Do not eat, drink or smoke when using this product.

Wash hands, face and exposed skin thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Keep container tightly closed.

Use only outdoors or in a well-ventilated area.

PRECAUTIONARY STATEMENTS:

**RESPONSE**

IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Center or doctor if you feel unwell.

**STORAGE**

Store locked up. Store in a well-ventilated place.

**DISPOSAL**

Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Mixed metal oxide	**	**
Amorphous metal salt	**	**
Double salt of a mineral acid	**	**
Inorganic sodium salt	**	**
Crystalline metal salt	**	**
Inorganic metal oxide	**	**
Inorganic alkali	**	**
Cristobalite	14464-46-1	5-10
Crystalline silica, quartz	14808-60-7	0.1-1.0

**\*\*Confidential Business Information Exemption Registry Number 3424496 Granted April 14, 2023.**

**SECTION 4: FIRST AID MEASURES**

SKIN CONTACT:	Quickly and gently brush away excess chemical. Thoroughly flush with running water while removing contaminated clothing. Continue flushing for 30 minutes. Obtain medical attention.
EYE CONTACT:	Quickly and gently blot or brush chemical off the face. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens until flushing is done. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto the face. Quickly transport victim to an emergency care facility.
INGESTION:	Do not induce vomiting. Obtain immediate medical attention. If immediate medical attention is not available; rinse mouth thoroughly with water then give one glass of water. If spontaneous vomiting occurs keep head below hips to prevent aspiration of the vomit into the lungs. Never give anything by mouth if patient is unconscious, rapidly losing consciousness or convulsing.
INHALATION:	Move to area free from dust. Obtain immediate medical attention. If victim is not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
MOST IMPORTANT SYMPTOMS / EFFECTS:	ACUTE: Inhalation is expected to cause irritation of the nose and throat. May cause severe skin burns depending on concentration of the material and duration. May cause severe eye irritation and eye damage if first aid is not promptly available. Ingestion may cause burns to the mouth, throat and stomach. CHRONIC: Prolonged inhalation exposures may result in upper respiratory irritation and ulceration of the nasal passage. Long-term skin contact may cause dermatitis. Repeated inhalation of respirable crystalline silica and/or cristobalite may cause silicosis and/or cancer.
IMMEDIATE MEDICAL ATTENTION / SPECIAL TREATMENT	Immediate first aid or medical attention is required to reduce the chance of permanent injury due to eye contact or skin contact. If swallowed, contact emergency services or Poison Control Center immediately. Treat symptomatically.

## SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:	Use media appropriate for packaging and surrounding materials.
UNSUITABLE EXTINGUISHING MEDIA:	None known.
SPECIFIC FIRE HAZARDS:	None.
HAZARDOUS COMBUSTION PRODUCTS:	Not available
SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS:	Chemical protective clothing (e.g. chemical splash suit) and positive pressure self-contained breathing apparatus (NIOSH approved or equivalent) may be necessary.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use appropriate safety equipment. Evacuate unnecessary personnel. Avoid contact with spilled material.

### METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP

Collect dry material by shoveling. Collect uncontaminated material for repackaging. Collect contaminated material in an approved container for disposal. Flush spill area thoroughly with water. Do not flush to sewer. This product contains alkaline components and will be harmful to aquatic life. Notify appropriate regulatory and emergency agencies.

## SECTION 7: HANDLING AND STORAGE

### PRECAUTIONS FOR SAFE HANDLING

Avoid creating dust. Keep containers closed; use adequate ventilation. Do not get in eyes, on skin, or clothing. Avoid ingestion. Do not inhale dust. Wash thoroughly after handling. Wash contaminated clothing before re-use. Keep containers closed.

### CONDITIONS FOR SAFE STORAGE & INCOMPATIBILITIES

Store in cool, dry area separate from acids, reactive metals and ammonium salts. This product can absorb water from the air. In case of high humidity or storage for extended periods of time, use plastic bags to enclose product containers to avoid caking. Packaged inventory should be used on a first in, first out basis (FIFO). Empty containers contain residual hazardous material and should be handled and stored as if full.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

CHEMICAL NAME	EXPOSURE LIMIT (ACGIH TLV-TWA)
Mixed metal oxide	3 mg/m <sup>3</sup> /8hr (respirable fraction)
Amorphous metal salt	Not established
Double salt of a mineral acid	Not established
Inorganic sodium salt	Not established
Crystalline metal salt	Not established
Inorganic metal oxide	2 mg/m <sup>3</sup> /8hr
Inorganic alkali	2 mg/m <sup>3</sup> (ceiling)
Cristobalite	0.025 mg/m <sup>3</sup> /8hr
Crystalline Silica Quartz	0.025 mg/m <sup>3</sup> /8hr

ENGINEERING CONTROLS: Use only with adequate ventilation. If user operations generate dust use process enclosure, local exhaust ventilation or other engineering controls to keep worker exposure below limits.

### PERSONAL PROTECTIVE MEASURES

RESPIRATORY PROTECTION: Use a properly fitted particulate filter respirator complying with an approved standard if airborne concentrations exceeds TLV or if a risk assessment indicates this is necessary.

PROTECTIVE GLOVES: Rubber gauntlets recommended.

EYE PROTECTION: Wear tight fitting chemical goggles. Do not wear contact lenses.

OTHER PROTECTIVE EQUIPMENT (SPECIFY): Protective clothing as required to prevent contact. Ensure eye-wash station and emergency shower are available.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Gray powder
ODOUR:	Slight dusty odour
ODOUR THRESHOLD:	Not determined
pH:	>11 (1% in water)
MELTING POINT / FREEZING POINT:	Not applicable
BOILING POINT / RANGE:	Not applicable
FLASH POINT:	Not applicable
EVAPORATION RATE:	Not applicable
FLAMMABILITY:	Not applicable
FLAMMABILITY / EXPLOSIVE LIMITS:	Not applicable
VAPOUR PRESSURE:	Not applicable
VAPOUR DENSITY:	Not applicable
RELATIVE DENSITY:	Not available
SOLUBILITY:	Partially soluble in water
PARTION COEFFICIENT:	Not available
AUTO-IGNITION TEMPERATURE:	Not applicable
DECOMPOSITION TEMPERATURE:	Not applicable
VISCOSITY:	Not available

## SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	Aqueous solutions may react with metals to evolve hydrogen gas which can form an explosive mixture with air.
CHEMICAL STABILITY:	This product is hygroscopic.
POSSIBILITY OF HAZARDOUS REACTIONS:	Will not polymerize.
CONDITIONS TO AVOID:	Not available.
INCOMPATIBLE MATERIALS:	Acids. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead or zinc. May react with ammonium salt solutions resulting in evolution of ammonia gas.
HAZARDOUS DECOMPOSITION PRODUCTS:	May react with metals generating explosive hydrogen gas.

## SECTION 11: TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY:	Not determined
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CHEMICAL NAME	LD50 ORAL	LD50 DERMAL	LC50 INHALATION
Mixed metal oxide	>10,000 mg/kg (rat)	>2000 mg/kg (rabbit)	Not available
Amorphous metal salt	Not available	Not available	Not available
Double salt of a mineral acid	500 mg/kg (rat)	>2000 mg/kg (rabbit)	Not determined
Inorganic sodium salt	1152-1349 mg/kg (rat)	>5000 mg/kg (rat)	>2.06 g/m <sup>3</sup> /4hr (rat)
Crystalline metal salt	500-1000 mg/kg (rat)	<5000 mg/kg (rabbit)	>160 mg/m <sup>3</sup> /4hr (rat)
Inorganic metal oxide	Not available	Not available	Not available
Inorganic alkali	Not determined	Not determined	Not determined
Cristobalite	Not available	Not available	Not available
Crystalline silica, quartz	500 mg/kg (rat)	Not available	Not available

SKIN CONTACT:	Corrosive! May cause severe burns and tissue destruction.
EYE CONTACT:	Corrosive! May cause severe damage including burns and blindness. Severity of effects depends on concentration and how soon after exposure the eyes are washed.
INGESTION:	Corrosive! May cause severe burns and complete tissue perforation of mucous membranes of mouth, throat and stomach.
INHALATION:	Exposure to powder, vapour, mist or liquid can produce burns of the respiratory tract. Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Long-term inhalation of crystalline silica may cause silicosis; a progressive, disabling and sometimes fatal lung disease. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function. Chronic inhalation exposure to crystalline silica quartz has been observed to cause lymph node effects, kidney effects and auto-immune disease.
CARCINOGENICITY:	This product contains crystalline silica quartz and cristobalite, which when inhaled in the form of quartz from occupational sources is carcinogenic to humans: IARC has concluded that this chemical is carcinogenic to humans (Group 1); ACGIH has designated this chemical as a suspected human carcinogen (A2); NTP has listed this chemical as a known human carcinogen.
TERATOGENICITY:	No information available.
REPRODUCTIVE TOXICITY:	No information available.
MUTAGENICITY:	Crystalline silica has been shown to cause mutagenic effects in human cells in-vitro.
CHRONIC TOXICITY:	Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Long-term inhalation of crystalline silica may cause silicosis; a progressive, disabling and sometimes fatal lung disease. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function. Chronic inhalation exposure to crystalline silica quartz has been observed to cause lymph node effects, kidney effects and auto-immune disease.
TARGET ORGAN EFFECTS:	Irritation of the respiratory system.

## SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:	Not available.
PERSISTENCE AND DEGRADABILITY:	Not applicable to inorganic substances.
BIOACCUMULATIVE POTENTIAL:	This product has no potential for bioaccumulation.
MOBILITY IN SOIL:	Not applicable.
OTHER ADVERSE EFFECTS:	The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH.

## SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with federal, provincial and local regulations. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal. Empty containers, which have not been cleaned and purged, contain residual hazardous material and must be recycled, or disposed of, in accordance with local regulations.

## SECTION 14: TRANSPORTATION INFORMATION

TDG	Not regulated
DOT	Not regulated
IATA	Not regulated
IMDG	Not regulated
UN NUMBER:	Not applicable

PROPER SHIPPING NAME:	Not applicable
CLASS:	Not applicable
PACKING GROUP:	Not applicable
IMDG HAZARDS:	Not a marine pollutant
BULK TRANSPORT:	Not regulated
SPECIAL PRECAUTIONS:	None

## **SECTION 15: REGULATORY INFORMATION**

DSL:	Listed
WHMIS CLASS:	Not determined
TSCA:	Listed

## **SECTION 16: OTHER INFORMATION**

REVISION DATE:	April 18, 2023
PREVIOUS VERSION DATE:	October 5, 2021

The information contained herein is given in good faith, but no warranty, expressed or implied, is made.