

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	1263 MG-KRETE HIGH TEMP RETARDER	D2A
PRODUCT USE	High temp retarder is a powder additive for MG-KRETE to extend working time in high temperature environments.	
MANUFACTURE'S NAME	IMCO TECHNOLOGIES INC. 6254 SKYWAY RD., PO BOX 915 SMITHVILLE, ON. L0R 2A0	TEL 1-888-818-4626 FAX 905-527-0606
SUPPLIER'S NAME	SEE MANUFACTURER	
EMERGENCY NUMBER	613-996-666 or *666 CANUTEC 1-800-535-5053 UNITED STATES POISON INFORMATION CENTRE	
MSDS REVISION DATE	September 2, 2014	

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	WEIGHT %	CAS NUMBER	TWA Mg/m3	LD50 ORAL RAT Mg/kg	LC50 INHAL RAT ppm
DISODIUM TETRABORATE DECAHYDRATE	60 - 100	1303-96-4	5	2660	NA

3. HAZARDS IDENTIFICATION

ROUTE OF ENTRY	Eye contact, Ingestion, Skin contact, inhalation.
CARCINOGENIC STATUS	Not considered carcinogenic by IARC, and OSHA.
TARGET ORGANS	Eye, Skin, Testes.
HEALTH EFFECTS – EYE	Not irritating to eyes.
HEALTH EFFECTS – SKIN	Not irritating to skin.
HEALTH EFFECTS – INGESTION	Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Swallowing larger amounts may cause gastrointestinal symptoms. May cause abdominal discomfort, nausea, vomiting and diarrhea.
HEALTH EFFECTS – INHALATION	High concentrations of dust may cause coughing and mild, temporary irritation.

4. FIRST AID MEASURES

FIRST AID – EYE	Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if irritation persists or signs of toxicity occur.
FIRST AID – SKIN	Flush skin with soap and water.
FIRST AID – INGESTION	Swallowing small amounts (one teaspoon) will cause no harm to healthy adults. If larger amounts are swallowed, seek medical attention.
FIRST AID – INHALATION	Remove from exposure. Obtain medical attention immediately.

5. FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY	Non-flammable. Used as a fire-retardant.
EXTINGUISHING MEDIA	Use extinguishing media appropriate for surrounding fire.
SPECIAL HAZARDS OF PRODUCT	This product is a flame retardant.
PROTECTIVE EQUIPMENT FOR FIRE FIGHTING	Fire fighters should wear full protective clothing, including self-contained breathing equipment.
FLASH POINT (PMCC) (°C/F)	None
UPPER FLAMMABLE LIMIT %VOL	NA
LOWER FLAMMABLE LIMIT %VOL	NA
AUTOIGNITION TEMP (°C/F)	NA
EXPLOSION DATA – SENSITIVITY TO IMPACT	No
EXPLOSION DATA – SENSITIVITY TO STATIC DISCHARGE	No

6. ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES	Scoop up or vacuum up and place in an appropriate closed container. Water spill: Where possible, remove any intact containers from the water. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns the boron value to its natural environmental background level.
PERSONAL PRECAUTIONS	Wear appropriate protective equipment.
ENVIRONMENTAL PRECAUTIONS	Prevent entry into sewers or streams, dike if needed. Consult local authorities.

7. HANDLING AND STORAGE

HANDLING	Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid inhalation of chemical. Keep containers closed when not in use. Use appropriate personnel protective equipment. Wash thoroughly after handling.
STORAGE	Keep containers tightly closed. Protect against moisture.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROL MEASURES	Good ventilation practice should be exercised where necessary.
RESPIRATORY PROTECTION	If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator.
HAND PROTECTION	No special protection is needed. Any impervious glove for prolonged exposure.
EYE PROTECTION	Safety glasses with side shields.
BODY PROTECTION	Wear overall or apron. Launder contaminated clothing prior to reuse
PROTECTION DURING APPLICATION	During application, adequate ventilation must be provided. Mix in a well-ventilated area. If ventilation is poor, wear respiratory protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Crystalline solid
ODOUR & APPEARANCE	Odourless, white
ODOR THRESHOLD (ppm)	NA
SPECIFIC GRAVITY	1.7
VAPOR DENSITY (AIR = 1)	NA
VAPOR PRESSURE 20 C	Negligible
EVAPORATION RATE	NA
BOILING POINT (°C)	NA
FREEZING POINT (°C)	62
pH (1% solution at 20 C)	9.2
COEFFICIENT OF WATER/OIL DISTRIBUTION	NA
SOLUBILITY IN WATER	NA
VOC (g/l)	NA

10. STABILITY AND REACTIVITY

STABILITY	Stable under normal conditions
CONDITIONS TO AVOID	This material is a stable product, but when heated it loses water, eventually forming anhydrous borax.
MATERIALS TO AVOID	Strong reducing agents.
HAZARDOUS POLYMERIZATION	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS	NA

11. TOXICOLOGICAL INFORMATION

EFFECTS OF ACUTE EXPOSURE	Not irritating to the eyes and skin. Small amounts swallowed incidental to normal handling operations are not likely to cause injury.
EFFECTS OF CHRONIC EXPOSURE	High concentrations of inhaled dust may cause coughing and mild, temporary irritation. Swallowing large amounts may cause gastrointestinal symptoms. May cause abdominal discomfort, nausea, vomiting and diarrhea.
EXPOSURE LIMITS	ACGIH – 5 mg/m ³ TLV-TWA, OSHA – 10 mg/m ³ TWA
IRRITANCY	Mild irritation expected
SENSITIZATION	No
CARCINOGENICITY	Not listed by ACGIH and IARC.
REPRODUCTIVE TOXICITY	Animal ingestion studies, at high doses, indicate that borates cause reproductive and developmental effects. A human study of occupational exposure to borate dust showed no adverse effects on reproduction. The substance may be toxic to testes.
TERATOGENICITY	Boric acid studies in rats, at high doses, demonstrate developmental effects on the fetus, including fetal weight loss and minor skeletal variations. The doses administered were many times in excess of those to which humans would normally be exposed.
MUTAGENICITY	NA
TOXICOLOGICALLY SYNERGISTIC PRODUCTS	NA

12. ECOLOGICAL INFORMATION

MOBILITY	Product is soluble in water and is leachable through normal soil.
PERSISTENCE/DEGRADABILITY	The product decomposes in the environment to natural borate. Boron is naturally occurring in the environment.
BIO-ACCUMULATION	Product may bioaccumulate to a limited extent.
ECOTOXICITY	Rainbow trout, <i>S. gairdneri</i> (embryo-larval stage) 24-day LC50 = 88 mg B/L, 32-day LC50=54 mg B/L

13. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL	Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations
CONTAINER DISPOSAL	Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORTATION INFORMATION

CANADA	TDG CLASSIFICATION
HAZARD LABEL NOT REQUIRED	Not Regulated.
EXPORT	
DOT CFR 172.101 DATA	Not Regulated by D.O.T.
UN PROPER SHIPPING NAME	NA
UN CLASS	NA
UN NUMBER	NA
UN PACKAGING GROUP	NA
FLASH POINT	NA
HAZARDOUS MATERIAL	NA
HAZARD LABEL	NA

15. REGULATORY INFORMATION

WHMIS CLASSIFICATION: CLASS D, DIV.2, SUBDIVISION A – Very Toxic Material
CEPA STATUS (DSL) : All of the ingredients of this product are listed on the Domestic Substances List. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by CPR.

16. OTHER INFORMATION

HAZARD RATING (HMIS)	HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0 0-MINIMAL; 1-SLIGHT; 2-MODERATE; 3-HIGH; 4-EXTREME
KEY	NA: No applicable information found or available CAS#: Chemical Abstracts Service Number ACGIH: American Conference of Governmental Industrial Hygienists OSHA: Occupational Safety and Health Administration TLV: Threshold Limit Value PEL: Permissible Exposure Limit STEL: Short Term Exposure Limit NTP: National Toxicology Program IARC: International Agency for Research on Cancer R: Risk S: Safety LD50: Lethal Dose 50% LC50: Lethal Concentration 50%
PREPARED BY:	Imco Technologies Inc.

Provided data is offered in good faith as typical values and not as a product specification. No warranty, either express or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable, however, each user should review these recommendations.