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

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.

MANUFACTURER'S NAME: IMCO TECHNOLOGIES
6254 SKYWAY RD., PO BOX 915
SMITHVILLE, ON. L0R 2A0

EMERGENCY NUMBER: 613-996-6666 or *666 CANUTEC

2. 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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>CAS NUMBER</th>
<th>Weight %</th>
<th>TWA Mg/m3</th>
<th>LD50 ORAL RAT Mg/kg</th>
<th>LC50 INHAL RAT ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISODIUM TETRABORATE DECAHYDRATE</td>
<td>1303-96-4</td>
<td>60 – 100</td>
<td>5</td>
<td>2660</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

FIRST AID – INHALATION: Remove from exposure. Obtain medical attention immediately.

FIRST AID – SKIN: Flush skin with soap and water.

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 – INGESTION: Swallowing small amounts (one teaspoon) will cause no harm to healthy adults. If larger amounts are swallowed, seek medical attention.

INFORMATION FOR DOCTOR

Most important symptoms and effects, both acute and delayed.

No further relevant information

Indications of any immediate medical attention and special treatment needed.

No further relevant information available.

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.

**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.

### REFERENCES TO OTHER SECTIONS

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment

See Section 13 for disposal information

### 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.

**INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES:**

Keep ignition sources away – Do NOT Smoke  
Protect against electrostatic charges

**SPECIFIC END USE(S)**
No further relevant information available

### 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

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PHYSICAL STATE</strong></td>
<td>Crystalline solid</td>
</tr>
<tr>
<td><strong>ODOR &amp; APPEARANCE</strong></td>
<td>Odourless, white</td>
</tr>
<tr>
<td><strong>ODOR THRESHOLD (ppm)</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>SPECIFIC GRAVITY</strong></td>
<td>1.7</td>
</tr>
<tr>
<td><strong>VAPOR DENSITY (AIR = 1)</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>VAPOR PRESSURE 20°C</strong></td>
<td>Negligible</td>
</tr>
<tr>
<td><strong>EVAPORATION RATE</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>BOILING POINT (°C)</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>FREEZING POINT (°C)</strong></td>
<td>62</td>
</tr>
<tr>
<td><strong>pH (1% solution at 20°C)</strong></td>
<td>9.2</td>
</tr>
<tr>
<td><strong>COEFFICIENT OF WATER/OIL DISTRIBUT</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>SOLUBILITY IN WATER</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>VOC (g/l)</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>FLASH POINT (PMCC) (°C/F)</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>UPPER FLAMMABLE LIMIT % VOL</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>LOWER FLAMMABLE LIMIT % VOL</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>AUTOIGNITION TEMP (°C/F)</strong></td>
<td>NA</td>
</tr>
</tbody>
</table>
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/m3 TLV-TWA, OSHA – 10 mg/m3 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, S. gairdneri (embryo-larval stage) 24-day LC50 = 88 mg B/L, 32-day LC50=54 mg B/L

RESULTS of PBT and vPvB Assessment
PBT: N/A
vPvB: N/A

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.

UNCLEANED PACKAGING
Recommendation: Disposal must be made according to official regulations

14. TRANSPORTATION INFORMATION

MARINE POLLUTANT
NO

SPECIFIC PRECAUTIONS FOR USER
MA

CANADA
TDG CLASSIFICATION
Not Regulated.

HAZARD LABEL
NOT REQUIRED

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
15. REGULATORY INFORMATION

WHMIS (Canada): Not Controlled Under WHMIS (Canada)

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

<table>
<thead>
<tr>
<th>HAZARD RATING (HMIS)</th>
<th>HEALTH: 4</th>
<th>FLAMMABILITY: 5</th>
<th>REACTIVITY: 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEY</td>
<td>NA:</td>
<td>NA:</td>
<td>NA:</td>
</tr>
</tbody>
</table>

 فلاش نقطة
HAZARDOUS MATERIAL NA
HAZARD LABEL NA

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.

SDS REVISED DATE November 5, 2018

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.