Material Safety Data Sheet

PRODUCT NAME: DMDM HYDANTOIN

CHEMICAL PRODUCT AND DISTRIBUTOR IDENTIFICATION

TRADE NAME: DMDM HYDANTOIN
CAS #: 6440-58-0
DATE: September 16, 2008
Distributor: McKINLEY RESOURCES
Address: PO Box 810472, Dallas, TX 75381
Phone Number: 972-620-9730
EMERGENCY PHONE: CHEMTREC 800-424-9300

COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>DANGEROUS SUBSTANCE</th>
<th>CAS#</th>
<th>RANGE (%)</th>
<th>SYMBOL / R PHRASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-bis(hydroxymethyl)-5,5-dimethylimidazolidine</td>
<td>6440-58-0</td>
<td>55 %</td>
<td></td>
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<tr>
<td>[EC No 229-222-8]</td>
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<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>NMT 1 %</td>
<td>Xi 43</td>
</tr>
<tr>
<td>[EC No 200-001-8]</td>
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</tbody>
</table>

HAZARDS IDENTIFICATION

HAZARDS DESIGNATION: Xi
MAN/ENVIRONMENT PARTICULAR DANGERS: R43 – May cause sensitization by skin contact

NOTE: Classification system EC-classification published in CHIP approved supply list.

STABILITY AND REACTIVITY

HAZARDOUS REACTIONS: No hazardous reactions known.
HAZARDOUS DECOMP. PROD: No hazardous decomposition products known.

FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Water spray jet, dry powder, CO₂. Foam DO NOT USE Full Water jet for safety reasons
SPECIAL PROTECTIVE EQUIPMENT: Use breathing apparatus.
SPECIAL EXPOSURE HAZARDS ARISING FROM SUBSTANCE/PREPARATION ITSELF, COMBUSTION PRODUCTS: Risk of formation of toxic pyrolysis products
ADDITIONAL INFORMATION: Cool containers at risk with water spray jet.
PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
COLOR: Colorless
ODOR: Almost odorless
pH VALUE: 6.5 – 7.5
MELTING POINT: ca. -11°C
BOILING POINT: 96°C
FLASH POINT: 100°C
FLAMMABILITY (°C): --
SELF-IGNITION TEMP: --
LEL: --
UEL: --
COMBUSTIBLE PROPERTIES: no
VAPOR PRESSURE, (20°C): 1.06x10^-9mmHg
DENSITY: 1.15 – 1.16 g/cm³/25°C
SOLUBILITY IN WATER: Soluble
PARTITION COEFFICIENT: n-octanol/water: --
VISCOSITY: --

FIRST AID MEASURES

GENERAL INFORMATION: Not applicable
INHALATION: Ensure supply of fresh air. In the event of symptoms refer for medical treatment
SKIN CONTACT: Wash off immediately with soap & water. Consult a doctor if skin irritation persists.
EYE CONTACT: Rinse thoroughly with plenty of water and seek medical advice.
INGESTION: Rinse out mouth and give plenty of water to drink. Seek medical advice immediately.
ADVICE TO DOCTOR/TREATMENT: Treat symptomatically

ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Ensure adequate ventilation. Keep away from sources of ignition
ENVIRONMENTAL PRECAUTIONS: Do not discharge into the drains/surface waters/groundwater.
METHODS FOR CLEAN-UP: Take up with absorbent material (e.g. sand). Dispose of absorbed material in accordance with the regulations.

DISPOSAL CONSIDERATIONS

DISPOSAL / PRODUCT: Disposal must be in accordance with local, state, or federal regulations.
DISPOSAL/CONTAMINATED PKG: Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning.
RECOMMENDED CLEANING AGENT: Water, if necessary, with cleaning agent.
EUROPEAN WASTE CATALOGUE:
07 00 00 WASTES FROM ORGANIC CHEMICAL PROCESSES
07 06 00 Wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
07 06 99 Wastes not otherwise specified
HANDLING AND STORAGE

SAFE HANDLING:
- Avoid the formation of aerosols.
- Use only in well-ventilated areas.
- Use solvent resistant equipment.

STORAGE ROOM/VESSELS:
- Keep only in original container.
- Keep container in a well-ventilated place.
- Keep container tightly closed.
- Protect from heat/overheating.
- Provide solvent-resistant and impermeable floor.

STORAGE COMPATIBILITY:
- Not applicable.

FIRE/EXPLOSION PROTECTION:
- Take precautionary measures against static discharges.
- Keep away from sources of ignition.

EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION:
- Breathing apparatus in event of aerosol or mist formation.

HAND PROTECTION:
- Gloves (solvent resistant)

EYE PROTECTION:
- Protective goggles.

SKIN PROTECTION:
- Not applicable.

GENERAL PROTECTIVE MEASURES:
- Do not inhale gases/vapors/aerosols. Avoid contact with eyes and skin.
- Do not smoke when working. Wash hands before breaks and after work. Use barrier skin cream.

TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Dimension</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACUTE ORAL TOXICITY</td>
<td>LD50</td>
<td>rat</td>
<td>5000 mg/kg</td>
</tr>
<tr>
<td>ACUTE DERMAL TOXICITY:</td>
<td>LD50</td>
<td>rabbit</td>
<td>--</td>
</tr>
<tr>
<td>ACUTE INHALATIVE TOXICITY:</td>
<td>LC50</td>
<td>rat</td>
<td>--</td>
</tr>
<tr>
<td>IRRITANT EFFECT ON SKIN</td>
<td>--</td>
<td></td>
<td>--</td>
</tr>
<tr>
<td>IRRITANT EFFECT ON EYE</td>
<td>--</td>
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<tr>
<td>SENSITIZATION</td>
<td></td>
<td></td>
<td>Sensitization possible by skin contact</td>
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<tr>
<td>SUB ACUTE TOXICITY:</td>
<td>--</td>
<td></td>
<td>--</td>
</tr>
<tr>
<td>CHRONIC TOXICITY:</td>
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<tr>
<td>SUB CHRONIC TOXICITY:</td>
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<tr>
<td>MUTAGENICITY:</td>
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<tr>
<td>REPRODUCTION TOXICITY:</td>
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<tr>
<td>CARCINOGENICITY:</td>
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<tr>
<td>GENERAL REMARKS:</td>
<td></td>
<td></td>
<td>Not applicable.</td>
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</table>
ECOLOGICAL INFORMATION

INFORMATION ABOUT ELIMINATION (PERSISTENCE AND DEGRADABILITY):
The components are readily biodegradable/to eliminate

BEHAVIOR IN ENVIRONMENT COMPARTMENTS:
- FISH TOXICITY: N/A
- DAPHNIA TOXICITY: N/A
- BACTERIA TOXICITY: N/A
- BEHAVIOR IN SEWAGE PLANT: N/A

MOBILITY AND BIO-ACCUMULATION POTENTIAL:
Due to the distribution coefficient n-octanol/water, an accumulation in organisms is not expected.
Log Pow -2.37; 1,3-bis(hydroxymethyl)-5,5-dimethylimidazolidine.

ECOTOXICOLOGICAL EFFECTS:
- LC50 / 96 h: 173 – 515 mg/l (fish)
- EC50 / 96 h: 37 mg/l (Daphnia)

CHEMICAL OXYGEN DEMAND: No
BIOCHEMICAL OXYGEN DEMAND: No
AOX-ADVICE: No

CONTAINS HEAVY METALS AND COMPOUNDS OF 76/464 EC: Due to its formulation, the product does not contain any heavy metals

TRANSPORT INFORMATION

LAND TRANSPORT ADR/RID (cross-border domestic):
- ADR/RID ADG (Australia) class: No dangerous good
- UN-No.: ---
- Packaging Group: ---
- Label: ---
- Destination of Goods: ---
- Marine transport/IMDG/GGV Sea: ---

IMDG Class: No dangerous good
- UN-No.: ---
- Packing Group: ---
- Label: ---
- EMS Number: ---
- Marine Pollutant: ---
- Proper shipping name: ---

Air Transport/ICAO and IATA-DGR:
- ICAO/IATA Class: No dangerous good
- UN No.: ---
- Label: ---
- Packing group: ---
- Proper shipping name: ---
REGULATORY INFORMATION

LABELING

Does not require a hazard warning label, but the normal safety precautions for handling chemicals must be observed.

LETTER/HAZARD DESIGNATION: Xi Irritant

HAZARD SYMBOLS:

R Phrase: R43 May cause sensitization by skin contact

S Phrases: S26 Avoid contact with skin
S36/37 Wear suitable protective clothing and gloves

REGULATIONS WHICH MAY APPLY IN EVENT OF ACCIDENT:

CONTROL OF MAJOR ACCIDENT HAZARDS (COMAH): Not listed in COMAH

WATER HAZARD CLASS: WGK 1

TSCA: Listed

ADDITIONAL INFORMATION

ADDITIONAL INFORMATION: The product contains materials that are harmful to the environment. Avoid transfer into the environment.

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