Material Safety Data Sheet

PRODUCT NAME: SHAROMIX HMG

CHEMICAL PRODUCT AND DISTRIBUTOR IDENTIFICATION

TRADE NAME: SHAROMIX HMG
DATE: November 7, 2012
DISTRIBUTOR: ACME-HARDESTY COMPANY
ADDRESS: 450 Sentry Parkway
Blue Bell, PA  19422
TELEPHONE: (866) 226 – 3834
FAX: (215) 591 – 3620
EMERGENCY: CHEMTREC (800) 424-9300

COMPOSITION / INFORMATION ON INGREDIENTS

INCI NAME: Sodium HydroxyMethyl Glycinate

<table>
<thead>
<tr>
<th>DANGEROUS SUBSTANCE</th>
<th>CAS-NO.</th>
<th>CONTENT</th>
<th>SYMBOL</th>
<th>R-PHRASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine, N-(hydroxymethyl)-,monosodium salt</td>
<td>70161-44-3</td>
<td>50%</td>
<td>Xi</td>
<td>R43</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>49%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formaldehyde [EC No 200-001-8]</td>
<td>50-00-0</td>
<td>NMT 1%</td>
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HAZARDS IDENTIFICATION

HAZARDS DESIGNATION: Xi: Irritant
MAN/ENVIRONMENT PARTICULAR DANGERS: R43: May cause sensitization by skin contact
RELEVANT TO HAZARDOUS INGREDIENTS: R43 May cause sensitization by skin contact.
CLASSIFICATION SYSTEM: Classification system EC-classification published in CHIP approved supply list.

WARNING: CAUSES MODERATE SKIN IRRITATION
          CAUSES MILD EYE IRRITATION
          MAY CAUSE AN ALLERGIC SKIN REACTION

HAZARD OVERVIEW:

TARGET ORGANS: Skin / Eyes
PRIMARY ENTRY ROUTES: Dermal - Skin, Eyes
ACUTE HEALTH HAZARDS: Causes moderate skin irritation
Causes mild eye irritation
May cause an allergic skin reaction

CHRONIC HEALTH HAZARDS: Unknown

OVEREXPOSURE SIGNS/SYMPOTMS:

EYE CONTACT: Causes mild eye irritation.
SKIN CONTACT: Causes moderate skin irritation.
May cause an allergic skin reaction.

INGESTION: Not a hazard under normal use conditions.
INHALATION: May cause allergic respiratory reaction.
FIRST AID MEASURES

GENERAL INFORMATION:

INHALATION: Remove person to fresh air
If not breathing, give artificial respiration
If breathing is difficult, get immediate medical attention

SKIN CONTACT: Immediately wash with soap and plenty of water
Remove contaminated clothing and launder before reuse
Get medical attention if symptoms occur

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes
Get medical attention if irritation persists

INGESTION: Do not induce vomiting.
Slowly dilute with 1-2 glasses of water or milk and seek medical attention.
Never give anything by mouth to an unconscious person.

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: All standard fire-fighting media

UNUSUAL FIRE/EXPLOSION HAZARD: Unknown

FLASH POINT, °F: 212

PROTECTIVE EQUIPMENT: Full protective clothing, including self-contained breathing equipment.

ADDITIONAL INFORMATION:

HMIS RATING: NFPA RATING:
HEALTH: 2 HEALTH: 2
FLAMMABILITY: 1 FLAMMABILITY: 1
REACTIVITY: 0 REACTIVITY: 0

ACCIDENTAL RELEASE MEASURES

PERSONAL SAFETY PRECAUTIONS: Wear appropriate protective clothing.

CLEANING/COLLECTING MEASURES: Contain spill with sand or other inert material

HANDLING AND STORAGE

SAFE HANDLING: Avoid contact with skin and eyes
Do not get on skin
Wash thoroughly with soap and water after handling

STORAGE: Keep containers tightly closed when not in use
Store in a cool, dry place, out of direct sunlight
EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use in a well-ventilated area.

RESPIRATORY PROTECTION: Wear a NIOSH approved respirator appropriate for airborne exposure at the point of use.

HAND PROTECTION: All cleanable impervious glove types are acceptable.

EYE PROTECTION: Chemical goggles. Wear a face shield if splashing hazard exists.

HYGIENE MEASURES: Do not smoke when working. Wash hands before breaks and after work. Use barrier skin cream.

PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid.

COLOR: Clear to pale yellow.

ODOR: Characteristic, Mild.

ODOR THRESHOLD: Not available.

pH VALUE: 10.0 – 12.0.

MELTING POINT, °F: Not determined.

SPECIFIC GRAVITY @ 20°C, g/ml: 1.3.


FLASH POINT, °F: 212.

VAPOR PRESSURE @ 20°C: 1.0 mmHg.

SOLUBILITY IN/MISCIBILITY WITH WATER: Soluble in water.

STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions of handling, use and transportation.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Temperatures over 85°F.

MATERIALS TO AVOID: Epoxy or phenolic-lined containers.
TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>SPECIES</th>
<th>VALUE</th>
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</thead>
<tbody>
<tr>
<td>ACUTE ORAL TOXICITY</td>
<td>LD50</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,100 mg/kg</td>
</tr>
<tr>
<td>ACUTE DERMAL TOXICITY</td>
<td>LD50</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 2,000 mg/kg (100% Sodium HydroxymethylGlycinate)</td>
</tr>
<tr>
<td>ACUTE INHALATION</td>
<td>LC50</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.0 mg/l (4.5 hr. exposure)</td>
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SENSITIZATION
- Strong sensitizer to guinea pig skin (GPMT) (as sold)
- Non-sensitizer (Human RIPT) (0.5% aqueous solution)
- Moderate sensitizer to guinea pig skin (GPMT) (5% w/v aqueous solutions)
- Mild sensitizer to guinea pig skin (GPMT) (0.5% w/v aqueous solution)

MUTAGENICITY:
- Non-mutagenic (Ames assay) (100% Sodium hydroxymethylglycinate)
- Non-mutagenic (Mouse micronucleus)
- Non-mutagenic (Rat hepatocyte/DNA repair assay)
- Non-mutagenic (In Vivo - In Vitro Rat Hepatocyte UDS Assay)

REPRODUCTIVE/DEVELOPMENTAL TOXICITY: Oral; Rat; 150, 300 or 450 mg/kg/day for 9 days; not teratogenic or embryotoxic (100% sodium hydroxymethylglycinate)

SKIN IRRITATION:
- Non-irritating to human skin (0.5% aqueous solution)
- Non-irritating to guinea pig
- Moderately irritating to rabbit skin (100% solids)

EYE IRRITATION:
- Mildly irritating to rabbit eye with and without washout.

OTHER INFORMATION:
- Subchronic Oral Toxicity: 90 day Rat; 10, 40, and 160 mg/kg/day
- Sodium hydroxymethylglycinate
- No toxic effects

ECOLOGICAL INFORMATION

BIODEGRADABILITY: Readily biodegradable

AQUATIC TOXICITY:
- 96 hr. Flow-through LC50 > 100mg/L (Bluegill) (100% Sodium hydroxymethylglycinate)
- 96 hr. Flow-through LC50 = 93.8 mg/L (Rainbow Trout) (100% Sodium hydroxymethylglycinate)
- 48 hr. Flow-through LC50 = 100mg/L (Daphnia) (100% Sodium hydroxymethylglycinate)
- Bobwhite LD50 > 2,250 mg/kg (100% Sodium hydroxymethylglycinate)
- Bobwhite & Mallard LD50 > 5,620 ppm (100% Sodium hydroxymethylglycinate)

MOBILITY/BIOACCUMULATION POTENTIAL: Due to the distribution coefficient n-octanol/water, an accumulation in organisms is not expected.
- Due to its formulation, the product does not contain any heavy metals.

GENERAL INFORMATION: The product contains materials that are harmful to the environment.
- Avoid transfer into the environment.
DISPOSAL CONSIDERATIONS

DISPOSAL OF WASTE METHOD: Federal, state and local disposal laws and regulations will determine the proper waste disposal/recycling/reclamation procedure. Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected.

RECOMMENDATIONS: Product must be disposed of according to local regulation pertaining to the disposal of hazardous waste.

EUROPEAN WASTE CATALOGUE: 07 00 00 Wastes from Organic Chemical Processes, 07 06 00 Wastes from MFSU of fats, grease, soaps, detergents, disinfectants & cosmetics, 07 06 99 Wastes not otherwise specified.

CONTAMINATED PACKAGING RECOMMENDATIONS: Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning.

RECOMMENDED CLEANING AGENT: Water, if necessary with cleaning agent.

TRANSPORT INFORMATION

LAND TRANSPORT:
- DOT (Non-Bulk): NOT REGULATED
- DOT Shipping Name: NOT REGULATED
- UN/NA Number: NONE
- Hazard Class: NONE

- DOT (Bulk): NOT REGULATED
- DOT Shipping Name: NOT REGULATED
- UN/NA Number: NONE
- Hazard Class: NONE

AIR TRANSPORTATION (IATA):
- Proper Shipping Name: NOT REGULATED
- UN Number: NONE
- Hazard Classification: NONE

SEA TRANSPORTATION (IMO):
- Proper Shipping Name: NOT REGULATED
- UN/ID Number: NONE
- Hazard Classification: NONE

TDG (Canada):
- Proper Shipping Name: NOT REGULATED
- Hazard Class: NONE
REGULATORY INFORMATION

LISTED ON THE FOLLOWING INVENTORIES

- TSCA Inventory List: This product and/or its components is listed on TSCA
- Australia Inventory of Chemical Substances (AICS) List: This product and/or its components is listed on AICS
- EU EINECS List: This product and/or its components is listed on EINECS

NOT LISTED ON THE FOLLOWING INVENTORIES

- Canada DSL Inventory List: This product and/or its components is not listed on DSL
- Canada NDSL Inventory List: This product and/or its components is not listed on NDSL
- Japan Inventory of Existing & New Chemical Substances (ENCS): This product and/or its components is not listed on ENCS
- EU ELINCS List: This product and/or its components is not listed on ELINCS

California Proposition 65
- Carcinogens & Reproductive Toxicity (CRT) List: None of the components of this product is listed on CALPROP

WHMIS Ingredient Disclosure List:
- None of the components of this product is listed on WHMIS Ingredient Disclosure list

ADDITIONAL INFORMATION

HMIS RATING:  
- Health: 2
- Flammability: 1
- Reactivity: 0

NFPA RATING:  
- Health: 2
- Flammability: 1
- Reactivity: 0

Xi: Irritant
R43: May cause sensitization by skin contact

The data herein are based on our current knowledge and believed to be reliable. Acme-Hardesty Co., provides this information without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

Users must make their own determination that handling, storage and use of the product in the anticipated manner is safe and appropriate. Because these actions of the user are out of our control, and may be beyond our knowledge, we do not assume responsibility and expressly disclaim liability for loss, damage, expense or any other claim arising out of or in any way connected with the handling, storage, use or disposal of the product.

Disposal of containers must comply with applicable federal, state and local laws and regulations. Empty containers should never be given to individuals.