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MECK PHARMACEUTICALS & CHEMICALS PVT.LTD

MATERIAL SAFETY DATA SHEET

Title: GLUCOSAMINE HYDROCHLORIDE		Page 1 of 3
DOC No: MSDS /GH/ 004		Effective Date: 03/05/2013
Prepared By	Checked By	Approved By
D.RAJYAGURU <i>Rajyaguru</i>	R.D.PATEL <i>R.Patel</i>	M.R.PATEL <i>M.R.Patel</i>

1.0 PRODUCT INFORMATION

- 1.1 Chemical Characterization : Glucosamine Hydrochloride USP
- 1.2 CAS No. : 66-84-2
- 1.3 Empirical Formula :  $C_6H_{13}NO_5.HCl$
- 1.4 Molecular Weight : 215.63
- 1.5 Form : Solid

2.0 PHYSICAL AND SAFETY DATA

- 2.1 Melting Point (°C) : Decomposed at about 200°C.
- 2.2 Solubility : Soluble in Water
- 2.3 Flash Point : Non Flammable
- 2.4 Ignition Temperature : Not available
- Explosion Limits : Not available
- Hazardous Decomposition : Not available
- Main Hazards : Not available

3.0 HANDLING

Cause irritation to eyes, skin, and respiratory tract. Avoid contact with skin, eyes, wear safety glasses, gloves for protection. Wash thoroughly after handling.

4.0 FIRST AID MEASURES

- 4.1 Eye Contact : Immediately flush eyes with plenty of water, at least 15 minutes lifting lower and upper eyelids occasionally. Get medical attention.
- 4.2 Skin Contact : Immediately wash affected area with plenty of water. Removing contaminated clothing and shoes. Get Medical attention.
- 4.3 Inhalation : Take him to fresh air. If breathing is difficult, give artificial respiration.
- 4.4 Ingestions : If the chemical has been confined to the mouth give large quantities of water as a mouthwash ensuring that the mouthwash is not swallowed. If the chemical has been swallowed, give plenty of water to drink to dilute it in the stomach. Seek medical attention.

5.0 FIRE FIGHTING MEASURES

- 5.1 Flashpoint of substance : Not flammable. Will support combustion if exposed to fire.

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- 5.2 Suitable Extinguisher : Water spray, carbon dioxide, dry chemical powder, chemical form
- 5.3 Exposure Hazards : Emits toxic and corrosive fumes of CO, CO<sub>2</sub>, Nox and unburnt hydrocarbons.
- 5.4 Protective equipment for Firefighters : Wear NOISH/MSHA approved or equivalent self contained breathing apparatus with full proactive clothing.

#### 6.0 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Protection : When dealing with bulk solid material, wear appropriate NIOSH/MSHA approved respirator and chemical safety gloves, goggles, safety boots, safety shower, eye bath and mechanical exhaust required.
- 6.2 Leak & spills : Sweep up the spilled material immediately and place in to a suitable disposal container. Avoid generating dust.
- 6.3 Clean up procedure : wash the spillage area with water.

#### 7.0 HANDLING AND STORAGE

- 7.1 Handling : Use safety device while handling.
- 7.2 Storage : Avoid contact with oxidizing materials. Store in dry, cool place. Avoid the formation of dust.

UNCONTROLLED

#### 8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Personal Protection : Wear appropriate NIOSH/MSHA approved respirator. Wear chemical safety goggles, compatible chemical resistant gloves. Safety shower, eye bath and mechanical exhaust required.

#### 9.0 ENVIRONMENTAL EXPOSURE CONTROLS

- 9.1 Control Methods : Contain residues for disposal and void release to the environment.

#### 10.0 STABILITY & REACTIVITY

- 10.1 Stability : Stable at normal temperature & pressures.
- 10.2 Material to Avoid : Toxic and corrosive fumes, nitrogen oxides, carbon monoxide, carbon dioxide and uncombusted Hydrocarbons.

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11.0 TOXICOLOGICAL INFORMATION

- 11.1 Acute oral toxicity : Not determined.
- 11.2 Health Effects : Causes irritation to respiratory tract.  
Inhalation
- 11.3 Skin Contact : May cause skin irritation
- 11.4 Eye Contact : Causes irritation to eyes.
- 11.5 Ingestion : Cause irritation to digestive tract. Large ingestions may be harmful.

12.0 ECOLOGICAL INFORMATION

- 12.1 Ecotoxicity effect : Data not available

13.0 DISPOSAL CONSIDERATIONS

- 13.1 Waste Disposal : Mix waste material containing the substance with a combustible solvent & burn in a chemical incinerator equipped with an afterburner & scrubber.

14.0 TRANSPORT INFORMATION

- 14.1 Transport Hazard : Not regulated

15.0 OTHER REGULATORY INFORMATION

- 15.1 Health Hazard : 2
  - 15.2 Fire Hazard : 1
  - 15.3 Reactivity : 0
- FIRE PROTECTION
- 15.4 Health : 2
  - 15.5 Flammability : 1
  - 15.6 Reactivity : 0
  - 15.7 Specific Hazard : N.A
  - 15.8 Protective Equipment

Gloves, Safety Goggles,  
Lab Coat.

Wear Appropriate Respirator

16.0 OTHER INFORMATION

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. MECK PHARMACEUTICALS & CHEMICALS PVT. LTD. Shall not be held liable for any damage from handling or from contact with the above product

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