Material Safety Data Sheet

1. Product Identification And Company Identification

Product Name: IDGUARD

Application of the substance / the preparation: Sterilization of Surgical Instruments.

Company Name: Medizysis India Pvt Ltd

Manufactured By: Zenith Chemical & Allied Industries

Emergency Phone: 011-22343535.

2 Composition/information on ingredients

Information on Ingredients:

Name CAS No. % Range

Glutaraldehyde 111-30-8.0 to 4 %

3. HAZARDS IDENTIFICATION

Emergency overview: Not expected to be flammable or be a significant health hazard.

Properties affecting health: May cause sensitization by repeated inhalation and skin contact.

Principle routes of exposure:

Oral: Can irritate the tissues of mouth, esophagus, and other tissues of the digestive system. Symptoms of over exposure can include vomiting, diarrhea and nausea.

Eye contact: Risk of serious damage to eyes.

Skin contact: May cause skin irritation. May aggravate pre-existing dermatitis.

Ingestion: Ingestion of this material may cause oral thrush, nausea, vomiting, epigastria, Distress, diarrhea, headache, fatigue, dizziness, insomnia, mental confusion, and impairment.

Inhalation: Inhalation of mist or vapors may be severely irritating to the nose, throat and lungs.

Hazard information: Target organ effects: None

Reproductive effects: This material is not reported to cause reproductive effects in humans.

Mutagenic effects: This product is not known to produce mutagenic effects in humans. Sensitization: May cause sensitization by repeated inhalation and skin contact. glutaraldehyde has been reported to cause occupational asthma and may aggravate pre- existing asthma, inflammatory or fibrotic pulmonary disease.

Signs and symptoms: None.

Medical conditions aggravated by exposure: Inhalation of vapor may cause asthma-like symptoms (chest discomfort and tightness, difficulty with breathing) as well as aggravate pre-existing asthma and inflammatory or fibrotic pulmonary disease.

4. FIRST AID MEASURES: Eye contact: In the case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical attention.

Ingestion: Call a physician or Poison Control Center immediately. Do not ingest emetic.

Inhalation: Move to fresh air immediately. If experiencing difficulty breathing, seek medical attention.

Skin contact: Rinse with water.

Remove contaminated clothing and wash before re-use.

Consult a physician if skin redness or irritation persists.

Protection of first-aiders: None.

Notes to physician: Probable damage to the mucosa from oral exposure may contraindicate the use of gastric larvae.

5. FIRE-FIGHTING MEASURES

Flash point (°F): Not applicable

Flash point (°C): Not applicable

Auto ignition temperature: Not applicable

Flammable limits in air - lower (%): Not applicable

NFPA rating: Health: 2 Flammability: 0 Reactivity: 0

Fire Fighting Information

Suitable extinguishing media: Use media appropriate for the surrounding fire.

Extinguishing media which must not be used for safety reasons: None

Specific methods: None

Special protective equipment for firefighters: Wear self-contained breathing apparatus for fire

Fighting if necessary.

Hazardous combustion products: None

Explosivity: None

Explosion limits:

lower: None

upper: None

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear eye and skin protection while handling material for clean up. Avoid breathing vapors and/or mist.

Responders should wear gloves, goggles and suitable body protection. Where there is a risk of product contact with shoes, chemical resistant shoe coverings are recommended.

Environmental precautions: Do not wash down sewers or waterways.

Methods for cleaning up: Clean-up methods - large spillage

Contain spill by placing suitable absorbent material around the edges of the spill and work inward. Carefully scoop up into waste container for disposal. For each estimated gallon of spill disperse about 228g of sodium bisulfate powder (CAS 7631-90-5) or 25 g of glycine (CAS 56-40-6) on spill. Thoroughly blend into solution. Allow 5 minutes for neutralization. Dispose of in accordance with all applicable, State and Local Regulations. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling: Technical measures/precautions: Safe handling advice: Use in well-ventilated area and use with appropriate exhaust ventilation, for example a minimum of 10 air exchanges per hour or as defined by state and local regulations.

Avoid breathing vapors or mist.

Avoid contact with skin, eyes and clothing. Remove contaminated clothing and launder before use.

Storage: Technical measures/storage conditions: The product should be stored between 59°F (15°C) and 86°F (30°C).

Incompatible products: Avoid contact with strong acids and bases. Keep from contact with oxidizing material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Ensure adequate ventilation.

Eye protection: Eye protection required.

Hand protection: Chemical resistant gloves required.

Skin and body protection Wear suitable protective clothing.

Respiratory protection: In case of insufficient ventilation wear suitable respiratory equipment.

Other/general protection: None required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Unactivated, colorless; Activated, green

Physical state: Liquid

pH: 3.0-4.6 (unactivated) 8.2-9.2 (activated)

Odor: Characteristic aldehyde odor

Boiling temperature (°F): 212

Boiling temperature (°C): 100

Freezing point/range (°C): 0

Freezing point/range (°F): 32

Specific gravity: 1.003 g/cc

Vapor density: 1.1

Vapor pressure: 0.0012mm Hg at @ 20C

Evaporation rate: 1.0

Water solubility: Completely Soluble.

10. STABILITY AND REACTIVITY

Chemical stability: Stable under recommended storage conditions.

Hazard polymerization: Hazardous polymerization does not occur.

Hazardous decomposition products: None.

Materials to avoid: Strong acids, bases and oxidizing agents.

Conditions to avoid: Extremes of temperature, direct sunlight and prolonged

heating at temperatures above 40°C.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral Rat (mg/kg): 4800 mg/kg for 2% Solution

Local effects

Oral: Unknown on product.

Eye irritation Severe irritant and corrosive to the eye when tested in animals. Skin irritation: Skin contact may aggravate pre-existing dermatitis.

Inhalation: Inhalation of vapor may cause asthma-like symptoms as well as aggravate preexisting ,asthma and inflammatory or fibrotic pulmonary disease.

Chronic toxicity

Oral: Unknown on product

Inhalation: Unknown on product

Dermal: Unknown on product

Subchronic toxicity

Oral: Sub chronic drinking water studies in rats, mice and dogs using glutaraldehyde

Concentrations of up to 1000ppm showed no evidence for any target organ toxicity.

Dermal: Unknown on product.

Specific effects

Corrosive effects: Unknown on product.

Sensitization: When administered to the skin of guinea pigs using the maximization method the compound was found to be a mild sensitizer.

Target organ effects: None.

Mutagenic effects: In vitro studies have given results varying from no geno toxicity to

Equivocal or weakly positive activity, however, all in vivo studies have been uniformly negative.

Reproductive effects: Not a reproductive effect in animals. This material is not reported to cause reproductive effects in humans.

Developmental effects: At maternally non-toxic doses, glutaraldehyde does not produce fetotoxic, embryotoxic or teratogenic effects.

Carcinogenic effects: No carcinogenic effect in rats or mice.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: This product has no known eco-toxicological effects.

Aquatic toxicity effects: This product has no known aquatic toxicological effects.

Mobility: Unknown on product

Persistence / degradability: Unknown on product

Bioaccumulation: Unknown on product

Degradation: Unknown on product.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Waste disposal must be in accordance with appropriate Local . This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

Contaminated packaging: Do not re-use empty containers.

Methods for cleaning up: Clean-up methods - large spillage Contain spill by placing suitable absorbent material around the edges of the spill and work inward. Carefully scoop up into waste container for disposal. For each estimated gallon of spill disperse about 228g of sodium bisulfate powder (CAS 7631-90- 5) or 25 g of glycine (CAS 56-40- 6) on spill. Thoroughly blend into Solution. Allow 5 minutes for deactivation. Dispose of in accordance with all applicable Local regulations. Clean contaminated surface thoroughly.

14. TRANSPORT INFORMATION

DOT UN-No: Not applicable

DOT shipping name: Not applicable

Hazard class: Not regulated.

Subsidiary risk (hazard class): Not applicable

Packing group: Not applicable

DOT reportable quantity (lbs): Not applicable

IMO/IMDG:

Hazard class: Not regulated

IMDG page: Not applicable

IMDG-labels: Not applicable

Packing group: Not applicable

MFAG table No.: Not applicable

Proper shipping name: Not applicable

UN/Id No.: Not applicable

ADR/RID:

Hazard class/packing group: Not applicable

Item: Not applicable

ADR/RID-labels: Not applicable

UN/Id No.: Not applicable

Proper shipping name: Not applicable

TREM-card: Not applicable

IATA/ICAO:

Hazard class: Not regulated

Packing group: Not applicable

Proper shipping name: Not applicable

ID/UN No.: Not applicable

IATA - label: Not applicable

Packing group: Not applicable.

15. REGULATORY INFORMATION

SARA (311, 312) hazard class:

Immediate health: None Delayed health: None

Fire: None

Sudden Release of Pressure Hazard: None

Reactivity: None

Notice: The information herein is based on data considered to be accurate as of the date of Preparation of this material safety data sheet. However, no warranty or representation, expressed or implied is made as to the accuracy or completeness of the forgoing data and Safety information. The user assumes all liability for any damage or injury resulting from Abnormal uses, from any failure to adhere to recommended practices or from any hazard inherent in the nature of the product guarantee for any specific product properties and shall not establish a legally valid relationship

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