

MATERIAL SAFETY DATA SHEET

Reviewed & Approved by, Dr. P. Arjunan, Vice President – R&D

1. PRODUCT IDENTIFICATION

| TRADE NAME | : Clenza GA | |
|---------------------|--|--|
| MANUFACTURER'S NAME | : MYK LATICRETE INDIA PVT. LTD 8-2-703/A, 4 th floor, Leela Gopal Towers Road No-12, Banjara Hills, Hyderabad – 500034 | |
| | Tel: +91-40-30413100 | |

2. HAZARDOUS INGREDIENTS

| CHEMICAL NAMES | CAS NUMBERS | PERCENT | ACGIH TLV | OSHA PEL | OTHER(SPECIFY) |
|-------------------|-------------|---------|-----------|----------|----------------|
| Hydrochloric acid | 7647-01-0 | 10-70 % | 2 ppm | 5 ppm | N/A |

N/A- Not Applicable or available

3. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure. (Possible Longer Term Effects): N/A

SIGNS AND SYMPTOMS OF EXPOSURE (Acute effects)

Inhaled : **Corrosive!** Irritating to respiratory tract; inhalation of vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract, and in severe cases, pulmonary edema, circulatory failure, and death

Contact with skin or eyes : **Corrosive!** Skin contact can cause redness, pain, and severe skin burns unless the hydrochloric acid is washed off immediately. Skin may dry or crack due to astringent nature of material. Repeated skin contact may lead to development of dermatitis. Concentrated solutions cause deep ulcers and discolor skin. Eye contact results in severe irritation and painful burns of the eyes and eyelids. If material is not removed by copious irrigation with water at room temperature, visual Impairment or total loss of vision could result.

Absorbed through skin : May cause deep ulcers and discolor skin.

Swallowed : Corrosive! Swallowing hydrochloric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract. May cause nausea, vomiting, and diarrhea. Swallowing may be fatal.

Suspected cancer agent : NO

This product's ingredients are not found in the lists below.Federal OSHA: NONTP: NOIARC: NO

4. FIRST AID: EMERGENCY PROCEDURES

Eye Contact : Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally to ensure thorough rinsing; delay can result to permanent injury. Get medical attention immediately.

Skin Contact : In case of contact, immediately flush skin with plenty of water, avoiding hot water or hard scrubbing, for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Inhaled : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Swallowed : Do not induce vomiting! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE AND EXPLOSION

| Flash Point | : N/A | | | |
|--|-------------------------------------|------------|--|--|
| Auto ignition temperature, °F | : N/A | | | |
| Flammable limits in air, volume % | : Lower (LEL): N/A Upper (UEL): | N/A | | |
| Fire extinguishing materials Water spray : N/A Carbo Foam : N/A Dry ch | : n dioxide : N/A nemical : √ | other: N/A | | |
| Special fire fighting procedures : N/A | | | | |
| Unusual fire and explosion hazards : N/A | | | | |

Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.

Large Spill: Corrosive liquid. Poisonous liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Scoop up and place in a proper waste disposal container. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed

Preparing wastes for disposal (container types, neutralization, etc): Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility.

NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE

Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. When diluting, the acid should always be added to water slowly and in small amounts. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing. When opening metal containers, use non-sparking tools because of the possibility of hydrogen gas being present.

8. EXPOSURES CONTROL AND PERSONAL PROTECTION

Ventilation and engineering controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Respiratory protection (type) : Wear NIOSH approved respiratory protection. If the exposure limit is exceeded, a full face piece respirator with an acid gas cartridge may be worn.

Eye protection (type) : Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Gloves (specify material) : Rubber or plastic chemical resistant gloves.

Other clothing and equipment : additional protection including impervious boots, apron

or coveralls, as needed in areas of unusual exposure to prevent skin contact

Work practices, hygienic practices : Maintain good housekeeping standards. Wash hands thoroughly before handling food stuffs, liquids or tobacco products. Use common sense

and care around chemicals. Never mix this product with other chemicals. Consult your supervisor

for all other hygienic and safety practices.

Other handling and storage requirements : Consult a specialist BEFORE handling this product. Protective measures during maintenance of contaminated equipment: See above.

| 9. | PHYSICAL | PROPERTIES |
|-----|----------|------------|
| ••• | | |

| Vapor density (air=1) | : 1.267 | Melting point or range, °F | : N/A |
|-------------------------------------|-----------------|-------------------------------------|--------|
| Specific gravity @25 ⁰ C | : 1.07 | Boiling point or range, °F | : 226 |
| Solubility in water | : Soluble | Evaporation rate (butyl acetate = 1 |): N/A |
| Vapor pressure, mmHg at 20°C | : N/A | pH :<2 | |
| Appearance and odor | : Pale yellow c | lear liquid. | |

HOW TO DETECT THIS SUBSTANCE (Warning properties of substance as a gas, vapor, dust, or mist): N/A.

10. REACTIVITY DATA

Stability

: Stable

Conditions to avoid : Heat and direct sunlight.

Incompatibility (materials to avoid): Incompatible with metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials.

Hazardous decomposition products (Including combustion products): (from burning, heating, or reaction with other materials) : When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

Hazardous polymerization : Will not occur.

11. TOXICOLOGY INFORMATION

Toxicity to Animals:

Acute oral toxicity (LD50): 900 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 1108 ppm, 1 hours [Mouse]. Acute toxicity of the vapor (LC50): 3124 ppm, 1 hours [Rat]. Chronic Effects on Humans:

CARCINOGENIC EFFECTS: Classified 3 (Not classifiable for human.) by IARC [Hydrochloric acid]. May cause damage to the following organs: kidneys, liver, mucous membranes, upper respiratory tract, skin, eyes, Circulatory System, teeth.

Other Toxic Effects on Humans:

Very hazardous in case of skin contact (corrosive, irritant, permeator), of ingestion. Hazardous in case of eye contact (corrosive), of inhalation (lung corrosive).

Special Remarks on Toxicity to Animals:

Lowest Published Lethal Doses (LDL/LCL) LDL [Man] -Route: Oral; 2857 ug/kg LCL [Human] -Route: Inhalation; Dose: 1300 ppm/30M LCL [Rabbit] - Route: Inhalation; Dose: 4413 ppm/30M

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects (fetoxicity). May affect genetic material.

12. ECOLOGICAL INFORMATION

N/A

13. DISPOSAL INFORMATION

Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

Land transport (USDOT)

Proper shipping name: Hydrochloric acid. Hazard class: 8 ID number: UN 1789, Packing group: II DOT labels: Corrosive, DOT Placards : Corrosive.

Sea transport (IMDG)

Proper shipping name: Hydrochloric acid. Hazard class: 8 ID number: UN 1789, Packing group: II Labels: Corrosive

Air transport (*IATA/ICAO*)

Proper shipping name: Hydrochloric acid. Hazard class: 8 ID number: UN 1789, Packing group: II Labels: Corrosive

15. REGULATORY INFORMATION

All ingredients are listed on the U.S.EPA TSCA inventory of chemical substances.

16. OTHER INFOMATION

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