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Email: info@mncp.com.sa Website: www.mncp.com.sa
Project Location: Phase 2, Industrial Estate, Rabigh – Saudi Arabia

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT IDENTIFICATION

PRODUCT NAME : Anti-scalent for R.O. Process
PRODUCT APPLICATION : MEMBRANE ANTISCALER

SECTION 2 COMPOSITION / INGREDIENTS

COMPONENT CAS NO. % EXPOSURE LIMITS/HEALTH HAZARD

2-Hydroxy-1,2,3-

Propanetricarboxylic acid 77-92-9 60 -100 Total particulate dust: 15mg/M3 8-hrTWA

Respirable Particulate: 5 mg/M3 8-hr TWA

IVN-RBT LD50 330 mg kg-1

 Metaquest B
 6381-92-6
 20 -40
 IVN-RBT LB50
 47 mgkg-1

 SHMP
 10124-56-8
 10 -40
 IVN-MUS LD50
 62 mgkg-1

 Sulftech
 7757-83-7
 10-20
 IVN-MUS LD50175 mgkg-1

Booster proprietary information

SECTION 3 HAZARDS -IDENTIFICATION

EMERGENCY OVERVIEW: WARNING! Irritating to skin, eyes and respiratory tract. Harmful if swallowed or inhaled. May cause allergic skin reaction. Dusts may become explosive

SKIN & EYES: Irritating, Cause reddening, itching, inflammation, Direct contact with Eyes cause pain, tears, swelling, sensitivity to light and may cause corneal damage.

INHALATION: Irritating, sore throat, coughing, labor breathing, sneezing and burning sensation. Over exposure may cause systematic damage including target organ effects.

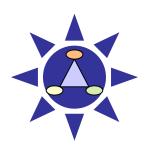
INGESTION: May cause gastrointestinal disturbances, severe irritation with intense burning of the mouth and throat followed by abdominal pain, distress, nausea, vomiting & diarrhea

HMIS & NFPA RATINGS:-

Health: 1 Flammability: 0 Reactivity: 0

SECTION 4 FIRST AID MEASURES

SKIN & EYES: Immediately flush with plenty of water with at least 15 minutes, Remove **contaminated cloth. ------ GET IMMEDIATE MEDICAL ATTENTION** ------



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INHALATION: Remove to fresh air, If not breathing, institute rescue breathing. If breathing is difficult, ensure Airway is clear and give OXYGEN. Keep effected person warm & at rest.

INGESTION: Do not induce vomiting. If victim is conscious and alert, give him 1-3 glass of water or milk to dilute stomach contents. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep effected person warm and at rest

Guidance for physician/doctor:- If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hrs. Sign and symptoms of CNS depression, confusion and convulsions should be considered in the assessment and treatment of victims of exposure.

SECTION 5

FIRE FIGHTING MEASURES

Flammability Limits for Dusts: Lower: 0.28 kg/m3 UPPER: 0.29 kg/m3

Flash point, Auto ignition Temperature : ND

Hazardous Combustion Products:- Combustion may produce Cox, Oxides of Sodium & Phosphorus and irritating vapors.

EXTINGUISHING MEDIA: - Use dry Chemical, Alcohol Foam, All purpose AFFF or Carbon Dioxide to extinguish fire.

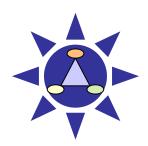
BASIC FIRE FIGHTING PROCEDURE: Do not add Water to Acid. Water applied directly results in evolution in heat and splattering of Acid. Can react with metals to liberate hydrogen gas, especially when diluted with water. Evacuate area and fight fire from a safe distance. Use water spray to cool adjacent structures and to protect personnel. When using water spray, use extreme caution. ACID SOLUTION IS CORROSIVE. Water and foam mat cause frothing. Dust dispersed by water stream in the presence of an ignition source could cause an explosion. Fire fighter must wear MSHA/NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment

USUAL FIR & EXPLOSION HAZARD:- Airborne dust in sufficient concentration when confined and exposed to a sufficient ignition source can explode.

SECTION 6

ACCIDENTAL RELEASE MEASURES

Emergency Action: NIL



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Environmental Precautions:- If product is released to the environment, take immediate steps to stop and contain release. Care should be taken regarding personnel safety and exposure to the release product. Notify to the concerned Authorities.

Spill or Leak Procedures:- Shovel into a container for later disposal. Avoid clean up procedure that may result in water pollution. Very fine particles can cause explosion or fire. Eliminate all ignition sources. Do not walk on the spilled material. Use appropriate respiratory, eye and skin protection equipment. Large spills may be neutralized with dilute Alkaline solutions of Soda Ash or Lime.

SECTION 7

HANDLING & STORAGE

Handling: - Material should be stored, shipped and transported in HDPE or Plastic Lined Containers. Do not use with materials and equipment sensitive to acidic solutions. Minimize dust generation during handling and contact. Reduce possibility of Static Charge, initiated fire or explosion by grounding the transfer lines & equipment. Use non sparking tools. Do not cut, grind, weld or reuse containers unless sufficient precautions taken against hazards. Avoid inhaling dust. Do not smoke, eat or drink in the areas of use or storage.

Storage: - Store in tightly closed containers in a cool, dry, isolated, well-ventilated area away from heat, source of ignition and incompatibilities. Avoid contact with strong oxidizers. Empty container may contain product residue. Do not reuse without adequate precautions. Avoid contact with metals. Avoid Excessive heat.

SECTION 8

EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Control:- General or local Exhaust ventilation and other forms of Engineering Controls are the best means for controlling exposures.

Eye, **Skin & Respiratory Protection**:- Use Chemical Safety Goggles, face shield, protective clothing, rubber gloves, boots. Avoid skin contact. Use NIOSH/MSHA approved dust respirator. Provide safety showers for emergency use. Use good personal Hygiene.

SECTION 9 PHYSICAL & CHEMICAL PROPERTIES

Appearance: Translucent or opaque white, partially crystalline Solid

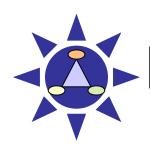
(OR)Liquid

Boiling Point; Not applicable Vapor pressure: Not Applicable

Odor : Odorless
Specific Gravity : 1.12 – 1.13
Volatile % : No data
Vapor Density : No data

pH value : 2-3 (LIQUID)

Solubility in Water: Soluble



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Molecular formula: Mixture Chemical family: Organic

SECTION 10

STABILITY AND REACTIVITY

Stability : Stable

Incompatibility: Incompatible with metal nitrates, alkali carbonates, bicarbonates

&oxidizers.

Product may decompose upon heating

Hazardous Reaction/Decomposition products:-Combustion may produce COx, oxides of

Sodium ,phosphorous and irritating vapors.

SECTION 11

DISPOSAL CONSIDERATIONS

This product in its present state, when discarded or disposed off, is not a hazardous waste According to USA regulation (40CFR 261). In other Countries waste should be disposed off As per local Government /State Government Rules & regulations.

SECTION 12

TRANSPORT INFORMATION

DOT information: Non regulated

SECTION 13

REGULATORY INFORMATION

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA Inventory.

SARA Section 313(40CFR372): This product does not contain Toxic Chemical in excess of the applicable minimum concentration.

SARA Title III Ratings: Immediate Hazard

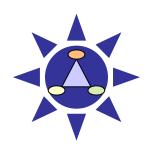
Outside the USA user must observe Local Rules & regulations

removal of biological, organics, colloids, particulates, silt and silica.

SECTION 14

GENERAL USE OF THE PRODUCT

This product is recommended for use in the on line cleaning of Polyamide type Membranes in Drinking Water & Waste Water purification process. Continuous use of this product prevents the membranes from fouling and bio film formation. It improves the Water production and is excellent for long life of the membranes. It is Excellent for



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SECTION 15

OTHER INFORMATION

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