



# GRASIM INDUSTRIES LIMITED

## CHEMICAL DIVISION

BIRLAGRAM, NAGDA (M.P.)

### MATERIAL SAFETY DATA SHEET

#### CHLOROSULPHONIC ACID

|   |  |  |
|---|--|--|
| <b>NAME (S)</b>   | <b>CHLOROSULPHONIC ACID</b><br>SULPHONIC ACID MONOCHLORIDE<br>SULPHURIC CHLOROHYDRIN   |  |
| <b>CHEMICAL FORMULA</b>   | <b>CISO<sub>3</sub>H</b>   |  |
| <b>PHYSICAL PROPERTIES</b>  |  | <b>OTHER CHARACTERISTICS</b>   |
| Molecular weight  | 116.53   | Appearance and odour: Clear to cloudy, colourless to pale yellow liquid with sharp odour   |
| Boiling Point   | 151° C   |  |
| Melting Point   | -80° C   | Water solubility: Decomposes violently   |
| Density at 18 C   | 1.766  |  |
| Vapour Pressure at 32C  | 1 mm Hg  |  |
| Vapour Density (Air = 1.0)  | 4.02   |  |
| <b>TLV/MAC VALUE</b>  | PPM<br>mg/M <sup>3</sup>   | 5 ACGIH(TWA) for Hydrochloric Acid<br>1 ACGIH (TWA) for Sulphuric Acid   |
| <b>HAZARDS</b>  | <b>PRECAUTIONS</b>   | <b>EXTINGUISHING AGENT(S)</b>  |
| <b>H<br/>A<br/>Z<br/>A<br/>R<br/>D</b><br>Not flammable, but on contact with combustible material, ignition could occur. Thermal decomposition emits toxic fumes of sulphur oxide and chlorine; highly corrosive to metals.   | Keep away from heat, spark and fire.<br>Do not heat.<br>Use with adequate ventilation.   | Carbon dioxide and dry chemical powder.<br>Do not use water where large quantities are involved.   |
| <b>S<br/>Y<br/>M<br/>P<br/>T<br/>O<br/>M<br/>S</b><br>Chlorosulphonic acid can cause severe burns, and is very irritating to eyes. Inhalation of concentrated vapours may cause loss of consciousness with damage to lung tissue. Contact with eyes and skin can cause severe burns. Upon ingestion it will irritate the mouth esophagus and stomach. | <b>P<br/>R<br/>E<br/>C<br/>A<br/>U<br/>T<br/>I<br/>O<br/>N<br/>S</b><br>Avoid contact with skin.<br>Use safety goggles, hand gloves.<br>Avoid inhalation of fumes.<br>Use with adequate ventilation. | <b>F<br/>I<br/>R<br/>S<br/>T<br/>A<br/>I<br/>D</b><br><u>Eye contact:</u> Wash thoroughly with water for 15 minutes.<br><u>Skin contact:</u> Remove contaminated clothing, wash affected part of body with plenty of water.<br><u>Inhalation:</u> Remove to fresh air; if not breathing give oxygen or artificial respiration.<br><u>Ingestion:</u> Wash out mouth and give water or milk; do not induce vomiting. |
| <b>D<br/>I<br/>S<br/>P<br/>O<br/>S<br/>A<br/>L</b><br>Wash out small spills with water to drain out. Absorb the spills on the inert material and transfer to dry container for disposal in a safe area.   | <b>S<br/>T<br/>O<br/>R<br/>A<br/>G<br/>E</b><br>Store in cool, dry and well-ventilated area away from heat, sparks and flame.  | <b>P<br/>A<br/>C<br/>K<br/>I<br/>N<br/>G</b><br>Metal drums  |
| <b>ADDITIONAL INFORMATION:</b><br>Avoid contact with water.   |  |  |