

MATERIAL SAFETY DATA SHEET

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|----------------------------------|---|--|--|--------------------------|----------------------|---|--------------|-------|--------|
| IDENTIFICATION & USE | TYPE OF PRODUCT Ferric/Ferrous ORP Standard, 476 mV | | CHEMICAL FAMILY inorganic acid solution | | | | | | |
| | PRODUCT NUMBER A1100187 | | FORMULA H ₂ SO ₄ | | | | | | |
| | MANUFACTURER'S NAME AND ADDRESS IC CONTROLS™ | | PRODUCT USE | | | | | | |
| | 29 Centennial Road | | EMERGENCY TELEPHONE NO. IC Controls: (519)941-8161 | | | | | | |
| | Orangeville, Ont. L9W 1R1 | | Poison Info Centre: 1 800 268-9017 | | | | | | |
| | CONTAINER SIZE AND TYPE polyethylene bottle | | USE AS RECEIVED | YES | | | | | |
| HAZARDOUS INGREDIENTS | SHIPPING NAME Sulphuric Acid, not more than 51 per cent acid | | CLASS | 8 (9.2) | | | | | |
| | PIN 2730 | WHMIS Classification Class E—corrosive | PACKING GROUP | II | | | | | |
| | CONCENTRATION* | HAZARDOUS INGREDIENTS | CHEMICAL NAMES | LD ₅₀ mg/kg | LC ₅₀ ** | CAS REGISTRY NO. | | | |
| | 1 5 | | Sulphuric Acid | ORL-RAT 2.14 g/kg | IHL—RAT 510 mg/kg | 7664-93-9 | | | |
| | 1 5 | | Ferric ammonium sulphate | | | 7783-83-9 | | | |
| | 1 4 | | Ferrous ammonium sulphate | | | 7783-85-9 | | | |
| PHYSICAL DATA | FREEZING POINT | | < 0 °C | MELTING POINT | N. Appl. °C | BOILING POINT | > 100 °C | | |
| | VAPOUR PRESSURE | | NA | VAPOUR DENSITY (AIR = 1) | NA | SPECIFIC GRAVITY (H ₂ O = 1) | 1.01 | | |
| | COEFFICIENT OF WATER/OIL DISTRIBUTION | | Not Avail. | EVAPORATION RATE | NA | pH AT 25 °C | 1- 1.5 | | |
| | ODOUR THRESHOLD | | Not Avail. | PHYSICAL STATE | GAS | LIQUID X | PASTE | SOLID | POWDER |
| | ODOUR AND APPEARANCE | | light green liquid | | | | | | |
| | FLASH POINT AND METHOD OF DETERMINATION | | NA | | FLAMMABLE LIMITS | L.E.L. NA | U.E.L. NA | | |
| FIRE & EXPLOSION DATA | CONDITIONS OF FLAMMABILITY | | not flammable | | | | | | |
| | MEANS OF EXTINCTION | | CO ₂ , water, dry chemical | | | | | | |
| | HAZARDOUS COMBUSTION PRODUCTS | | Not combustible, but will react with other chemicals. Toxic vapours may be released. | | | | | | |
| | | | AUTO IGNITION TEMP. | | NA °C | | | | |
| | EXPLOSION DATA | SENSITIVITY TO MECHANICAL IMPACT | | none | | | | | |
| | | SENSITIVITY TO STATIC DISCHARGE | | none | | | | | |
| SPECIAL FIRE FIGHTING PROCEDURES | | Wear self-contained breathing apparatus and protective clothing. | | | | | | | |

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| REACTIVITY | STABLE | YES | CONDITIONS TO AVOID | | PRODUCT NUMBER | |
| | UNSTABLE | | | | A1100187 | |
| | INCOMPATIBILITY—MATERIALS TO AVOID Caustics, alkalis, organic acids, metals, fulminates. | | | | | |
| | HAZARDOUS DECOMPOSITION PRODUCTS Toxic gases and vapours may be released when sulphuric acid decomposes. | | | | | |
| CONDITIONS OF REACTIVITY | | | | | | |
| HEALTH HAZARD DATA | HAZARDOUS ROUTES OF ENTRY | INHALATION | INGESTION | EYE CONTACT | SKIN CONTACT | SKIN ABSORPTION |
| | | | YES | YES | YES | |
| | EFFECTS OF EXPOSURE (ACUTE) Irritation of eyes, nose, throat and skin. Signs of exposure are irritation of skin, sores or burns on skin, excessive watering of eyes. | | | | | |
| | EFFECTS OF EXPOSURE (CHRONIC) May cause burns, erode teeth, cause the mouth to become sore, and chronic irritation and inflammation of the nose and throat. | | | | | |
| | EXPOSURE LIMITS | | | | | |
| | SENSITIZATION TO PRODUCT Diseases of the skin | | | | | |
| | CARCINOGENICITY Not found on ACGIH or IARC lists. | | | | | |
| | OTHER TOXICOLOGICAL EFFECTS | | | | | |
| | EMERGENCY AND FIRST AID PROCEDURES Contact physician for all significant forms of exposure. | | | | | |
| | Eyes and skin: flush eyes with large amounts of water and lift eyelids often. Flush skin with large amounts of water. Inhalation: remove to fresh air. Give artificial respiration if necessary. Ingestion: seek medical attention immediately. Give large amounts of water if conscious. | | | | | |
| PREVENTIVE MEASURES | RESPIRATORY PROTECTION Use in well-ventilated area. | | | | | |
| | VENTILATION | LOCAL EXHAUST | | SPECIAL | | |
| | | MECHANICAL (GENERAL) | | OTHER | | |
| | HAND PROTECTION protective gloves, impervious | | | EYE PROTECTION protective goggles | | |
| | PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL Wear impervious gloves. Dilute spill with water. Neutralize with slaked lime mixture. | | | | | |
| | If local regulations permit, mop up with plenty of water and run to waste, diluting with running water. | | | | | |
| | WASTE DISPOSAL METHOD Consult applicable laws for appropriate disposal practices. Wash hands thoroughly after handling. | | | | | |
| | HANDLING PROCEDURES AND EQUIPMENT Keep away from alkalis and use protective clothing while handling. | | | | | |
| | STORAGE REQUIREMENTS | | | | | |
| | SPECIAL SHIPPING INFORMATION | | | | | |
| PREPARATION | PREPARED BY Peter Bakker | | APPROVED BY Peter Bakker | | TELEPHONE | |
| | TITLE | | TITLE | | (519) 941-8161 | |
| | | | <i>Peter Bakker</i> | | DATE November 5, 2009 | |
| <p><i>The information provided in this Material Safety Data Sheet is compiled from data currently available to us. Safe use of the materials and adoption of safety precautions are the responsibility of the user. IC CONTROLS makes no representation or warranties, either express or implied, of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, IC CONTROLS will not be responsible for damages, including consequential damages, resulting from the use of or reliance upon this information.</i></p> | | | | | | |