HYDRITE CHEMICAL CO.
2655 N. MAYFAIR ROAD
MILWAUKEE, WI  53226

MATERIAL SAFETY DATA SHEET

AC-0066  SULFURIC ACID 66 DEG.  PAGE 1

DISTRIBUTED BY:  HYDRITE CHEMICAL CO.
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MSDS#: HY861AC0066XX
PREPARED BY: LMT/JRS
01/30/86

MANUFACTURED BY: DuPont, Stauffer, PVS

SECTION I - PRODUCT INFORMATION

TRADE NAME: Sulfuric Acid, 66 Deg. Baume
CHEMICAL NAME SYNONYMS: Oil of Vitriol
C.A.S. REGISTRY #: 7664-93-9
CHEMICAL FAMILY: Mineral Acid
FORMULA: 93.19 % H2SO4

DOT PROPER SHIPPING NAME: SULFURIC ACID
D.O.T. HAZARD CLASS: CORROSIVE MATERIAL
D.O.T. IDENTIFICATION #: UN1830  D.O.T. LABEL: Corrosive

SECTION II - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>PERCENT</th>
<th>TLV LEVEL</th>
<th>PEL LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfuric Acid</td>
<td>93.19%</td>
<td>1 mg/m3</td>
<td>1 mg/m3</td>
</tr>
</tbody>
</table>

SECTION III - PHYSICAL DATA

BOILING POINT (DEG. F): 535
FREEZING POINT (DEG.F): -31
VAPOR PRESSURE (MM HG): < 1
VAPOR DENSITY (AIR=1): 3.4
SOLUBILITY IN WATER: 100 %

SPECIFIC GRAVITY: 1.835
PERCENT VOLATILE
BY VOLUME: N.A
EVAPORATION RATE (nBuAc): < 1
SECTION III - PHYSICAL DATA

APPEARANCE AND ODOR: Oily, clear to turbid, colorless to light brown liquid. No odor.

SECTION IV - FIRE EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): None.

FLAMMABLE LIMITS
LEL: N.A.  UEL: N.A.

EXTINGUISHING MEDIA: Water spray. Dry Chemical. Carbon Dioxide. (Recommend media appropriate for adjacent areas.)

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate area of unprotected personnel. Wear protective clothing including a NIOSH-Approved self-contained breathing apparatus. Cool fire-exposed containers with water spray. Product generates heat upon addition of water, with possible spattering. Run-off from fire control may cause pollution. Neutralize run-off with Lime, Soda Ash, etc., to prevent corrosion of metals and formation of Hydrogen Gas.

UNUSUAL FIRE EXPLOSION HAZARDS: Product may react with some metals (ex.: Aluminum, Zinc, Tin, etc.) to release flammable Hydrogen gas.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 1 mg/m³ (OSHA 29 CFR 1910.2) 1 mg/m³ (ACGIH 1985-86)

EFFECTS OF OVEREXPOSURE
EYE CONTACT: Causes severe burns and destruction of tissues. Small quantities can result in permanent damage and loss of vision. SKIN CONTACT: Corrosive action causes burns and frequently deep ulceration with ultimate scarring. INHALATION: Inhalation of dust or mists can cause damage to the upper respiratory tract and to the lung tissue depending upon the
extent of exposure.
INGESTION: Ingestion can cause very serious damage to the mouth, esophagus, stomach, and other tissues with which contact is made, and may be fatal. Ingestion may cause death.

EMERGENCY AND FIRST AID PROCEDURES
EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids open during this flushing with water. Call a physician immediately.
SKIN CONTACT: Flush area with water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation persists, get medical attention. Do not apply oils or ointments unless ordered by the physician.
INGESTION: If conscious, drink a quart of water. DO NOT induce vomiting. CALL A PHYSICIAN immediately. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim.
INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. CALL A PHYSICIAN.

SECTION VI - REACTIVITY DATA

STABILITY: X STABLE _UNSTABLE
CONDITIONS TO AVOID: Contact with water may cause violent reaction with evolution of heat. To dilute: Add product slowly to lukewarm water; not water to product.


HAZARDOUS DECOMPOSITION PRODUCTS: Releases Sulfur Dioxide at extremely high temperatures. May react with certain metals to produce
SECTION VI - REACTIVITY DATA

flammable Hydrogen Gas. Hazardous gases are evolved on contact with chemicals such as Cyanides, Sulfides, Carbides, etc.

HAZARDOUS POLYMERIZATION: ___MAY OCCUR ___WILL NOT OCCUR

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
CORROSIVE MATERIAL. Evacuate unprotected personnel from area. Maintain adequate ventilation. Use proper Safety Equipment. Contain spill, place into drums for proper disposal. Flush remaining area with water and neutralize with Soda Ash or Lime and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. Under EPA-CERCLA, releases to air, land or water which exceed the reportable quantity must be reported to the National Response Center, 800-424-8802. RQ = 1000 lb (454 kg).

WASTE DISPOSAL METHOD: Observe all Local, State, and Federal Regulations. Dispose of at approved Landfill Site or Waste Treatment Facility. If approved, neutralize material and flush to sewer. DO NOT pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition.

SECTION VIII - SPECIAL PROTECTION INFORMATION

CONSULT SAFETY EQUIPMENT DISTRIBUTOR

RESPIRATORY PROTECTION: If TLV is exceeded wear: NIOSH-Approved self-contained breathing apparatus.

VENTILATION: Maintain adequate ventilation. Avoid mist formation.

PROTECTIVE GLOVES: Acid-proof. Gauntlet-type.
SECTION VIII - SPECIAL PROTECTION INFORMATION

EYE PROTECTION: Chemical Safety Goggles. Face shield. Do not wear contact lenses.


SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
CORROSIVE MATERIAL. Store in cool, well-ventilated area away from all sources of ignition and out of direct sunlight. Keep containers tightly closed. Relieve pressure in drums weekly. Highly corrosive to most metals with evolution of Hydrogen Gas.

OTHER PRECAUTIONS: Avoid contact with skin and eyes. Do not swallow. Use with adequate ventilation. Avoid prolonged or repeated breathing of vapors. Wash thoroughly after handling. Avoid dust or mist formation.

SECTION X - SUPPLEMENTAL HEALTH INFORMATION

CARCINOGEN CONTENT

<table>
<thead>
<tr>
<th>% PPM</th>
<th>INGREDIENT</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
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</thead>
</table>

NOTE: This product does not contain any known or potential carcinogens as listed in NTP, IARC, or OSHA.

LD50 ORAL : Rat: 2140 mg/kg
LD50 SKIN : Eye-Rabbit: 1380 ug (Severe irritation)
LC50 INHALATION : Guinea pig: 18 mg/m3
The data in this Material Safety Data Sheet relates only to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as a warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.