

# MATERIAL SAFETY DATA SHEET

## MATERIAL IDENTIFICATION

Technical Name

Sulphuric Acid (98%)

Synonyms

Oil of vitriol, fertiliser acid, battery acid, chamber acid.

Chemical Formula

H<sub>2</sub>SO<sub>4</sub>

Chemical Classification

Inorganic Acid

Hazard Class

Corrosive - 8

CAS Registry No.

7664-93-9

UN No.

1830

Haz Chem Code

2p

Hazardous Waste ID No.

16

Product Use: Manufacture of chemicals, fertilisers, fibre paints, pigments etc., used in lead / acid batteries, as drying agent and laboratory reagent.

## HAZARDOUS INGREDIENTS

Hazardous Ingredient

Sulphuric Acid

Concentration

98%

CAS/UN NO

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LC 50

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LD 50

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## PHYSICAL AND CHEMICAL PROPERTIES

State

Oily liquid

Colour

Colourless

Odour

Odourless

Molecular weight

98.08

Specific gravity

1.84 at 20°C

Water solubility

Dilutable

pH

1

Vapour pressure

0.1 mm Hg

Vapour density

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Freezing Point

3°C

Melting Point

3°C

Boiling Point

338°C

Others

## FIRE / EXPLOSION HAZARD DATA

Flammability

Non Flammable

TDG Flammability

N.A.

Flash Point

N.A.

Auto ignition temperature

N.A.

Explosive range

N.A.

Hazardous combustion products

Oxides of sulphur, H<sub>2</sub>S

Sensitivity to chemical impact

Stable

Sensitivity to static discharge

Stable

## REACTIVITY DATA

Chemical Stability

Stable

Incompatibility

Alkalies, water, organic materials, nitrates, carbides, chlorates.

Reactivity

Vigorous reaction with water. Reacts violently with alkalines, combustibles, reducing agents.

Dangerous reaction products

Hydrogen, toxic fumes of acid.

Stronger Oxidiser.

Explosive reaction with acetic acid, acetone, acetonitrile.

The information contained in this Material Safety Data Sheet is believed to be reliable but no representation, warranty or guarantee of any kind is made as to its accuracy, suitability for a particular application or results to be obtained from them. It is however, ensured that the information contained in the material safety data sheet is relevant to the product manufactured / handled or sold as the case may be by us.

## HEALTH HAZARD DATA

### Route of entry

Skin Contact, Ingestion, inhalation.

### Permissible limits

TLV=1Mg/M<sup>3</sup>

STEL = 5 mg/M<sup>3</sup>

### Lethal dose

LD50 (Rat) - 2140mg/kg

IDLH = 80 mg/M<sup>3</sup>

### Effects on acute exposure

Severe acid burns, corrosive,  
Sore throat, scar, burns. Damage to  
upper respiratory tract, lung tissue, lung edma.

### Effects on Chronic exposure

Dermatitis, distruction of  
respiratory trac and  
lung tissue.

### Sensitization to Material

Stable

### Synergistic materials

Data no available.

## PREVENTIVE MEASURES

### Storage requirement :

Bulk Storage : Mild Steel Tanks  
Small Quantities : Carboys.

### Handling Methods

Pumping

### Engineering Controls

Dike wall around storage tanks  
Adequate transfer facility from  
one tank to other.

### Personal protective equipment

Face shield, Protective  
clothing, hand gloves  
and gum boot.

### Leak, spill handling

Contain leak preventing enter into drains, water course. Do not our water on large spills, dilute spills by allowing acid to mix in water. Washings should be neutralised before disposal.

### Waste disposal

Dilution and neutralisation  
for disposal.

### Special shipping information

Grades of Purity : Technical 98%  
Storage Temp. : Ambient  
Inert Atmosphere : Not required  
Venting : Open

## EMERGENCY / FIRST - AID MEASURES

### Fire extinguishment

Not flammable

### Special procedure

### First - Aid

Skin - Remove contaminated clothing wash effected area  
with running water preferably under drench shower

### Antidotes

Ingestion : Large intake of water.  
Do not induce vomiting.

## ADDITIONAL INFORMATION

First Aid : No neutralising agent is used on skin. It will  
agrivate the injury.

## MANUFACTURER / SUPPLIER / CONSUMER DATA

### THE ANDHRA SUGARS LIMITED

Chemical & Fertilisers Division  
SAGGONDA - 534 318, A.P.  
Phone : 08811 - 253428

### KOVVUR

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updated - February, 2015

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