



# SAFETY DATA SHEET

Sulfuric Acid 66BE  
POLY DRUM

## 1. Identification

**Product identifier** Sulfuric Acid 93%  
**Other means of identification**  
SDS number 320078-03  
**Recommended use** For industrial and manufacturing use only.  
**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** Harcros Chemicals Inc  
**Address** 5200 Speaker Rd.  
Kansas City, KS 66106  
United States  
**Main Telephone Number** 1-913-321-3131  
**Website** www.harcros.com  
**E-mail** custserv@harcros.com  
**Emergency #: CHEMTREC** 1-800-424-9300  
**Emergency #: CHEMTREC** 1-703-527-3887 (call collect)

## 2. Hazard(s) identification

**Physical hazards** Not classified.  
**Health hazards**  
Acute toxicity, inhalation Category 2  
Skin corrosion/irritation Category 1  
Serious eye damage/eye irritation Category 1  
Carcinogenicity Category 1A  
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation  
**Environmental hazards**  
Hazardous to the aquatic environment, acute hazard Category 3  
Hazardous to the aquatic environment, long-term hazard Category 3  
**OSHA defined hazards**  
Combustible dust Not applicable  
Pyrophoric gas Not applicable  
Simple asphyxiant Not applicable

### Label elements



#### Signal word

Danger

#### Hazard statement

Causes severe skin burns and eye damage. Causes serious eye damage. Fatal if inhaled. May cause respiratory irritation. May cause cancer. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

#### Precautionary statement

##### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

<b>Response</b>	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wash contaminated clothing before reuse.
<b>Storage</b>	Store away from incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in accordance with local/regional/national/international regulations.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Sulfuric Acid		7664-93-9	90 - 100
Other components below reportable levels			5 - < 10

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Powder. Foam. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapors or spray mist. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up This product is miscible in water. Should not be released into the environment.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

Precautions for safe handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Table with 3 columns: Components, Type, Value. Row: Sulfuric Acid (CAS 7664-93-9), PEL, 1 mg/m3

US. ACGIH Threshold Limit Values

Table with 4 columns: Components, Type, Value, Form. Row: Sulfuric Acid (CAS 7664-93-9), TWA, 0.2 mg/m3, Thoracic fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Table with 3 columns: Components, Type, Value. Row: Sulfuric Acid (CAS 7664-93-9), TWA, 1 mg/m3

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. It is recommended that users of this product perform a risk assessment to determine the appropriate PPE.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Chemical respirator with organic vapor cartridge and full facepiece.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
<b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	Chemical respirator with organic vapor cartridge and full facepiece.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties****Appearance**

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Not available.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	0.3 - 2.1 1 N sol= 0.3, 0.1 N sol= 1.2, 0.01 N sol= 2.1
<b>Melting point/freezing point</b>	50.56 °F (10.31 °C)
<b>Initial boiling point and boiling range</b>	554 °F (290 °C)
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	0.000008 kPa at 25 °C
<b>Vapor density</b>	3.4
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Miscible
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	1.80 g/cm <sup>3</sup>
<b>Dynamic viscosity</b>	21 mPa.s
<b>Dynamic viscosity temperature</b>	77 °F (25 °C)

Kinematic viscosity	11.67 mm <sup>2</sup> /s estimated
Molecular formula	H2-O4-S
Molecular weight	98.08 g/mol
Specific gravity	1.8

## 10. Stability and reactivity

Reactivity	Reacts violently with strong alkaline substances. This product may react with reducing agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Do not mix with other chemicals. Contact with incompatible materials.
Incompatible materials	Bases. Reducing agents. Metals. Alkalies.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the products decomposition. Hydrogen gas. Sulfur oxides.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Fatal if inhaled.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

### Information on toxicological effects

**Acute toxicity** Fatal if inhaled. May cause respiratory irritation.

Product	Species	Test Results
Sulfuric Acid 93%		
<u>Acute</u>		
<u>Inhalation</u>		
LC50	Guinea pig	0.0193 mg/l, 8 Hours estimated
	Rat	372 mg/l, 1 Hours estimated
<u>Oral</u>		
LD50	Rat	2296 mg/kg estimated

Components	Species	Test Results
Sulfuric Acid (CAS 7664-93-9)		
<u>Acute</u>		
<u>Inhalation</u>		
LC50	Guinea pig	0.018 mg/l, 8 Hours
	Rat	347 mg/l, 1 Hours
<u>Oral</u>		
LD50	Rat	2140 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.

**Respiratory or skin sensitization**  
**Respiratory sensitization** Not a respiratory sensitizer.  
**Skin sensitization** This product is not expected to cause skin sensitization.  
**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.  
**Carcinogenicity** May cause cancer.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Sulfuric Acid (CAS 7664-93-9) 1 Carcinogenic to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Sulfuric Acid (CAS 7664-93-9) Known To Be Human Carcinogen.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.  
**Specific target organ toxicity - single exposure** May cause respiratory irritation.  
**Specific target organ toxicity - repeated exposure** Not classified.  
**Aspiration hazard** Not an aspiration hazard.  
**Chronic effects** Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

**12. Ecological information**

**Ecotoxicity** Harmful to aquatic life with long lasting effects. Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Product		Species	Test Results
Sulfuric Acid 93%			
<b>Aquatic</b>			
Fish	LC50	Fish	45.0644 mg/l, 96 hours estimated
<b>Components</b>		<b>Species</b>	<b>Test Results</b>
Sulfuric Acid (CAS 7664-93-9)			
<b>Aquatic</b>			
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> )	42 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.  
**Bioaccumulative potential** No data available.  
**Mobility in soil** No data available.  
**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.  
**Local disposal regulations** Dispose in accordance with all applicable regulations.  
**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products**

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

UN number	UN1830
UN proper shipping name	Sulfuric acid
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	A3, A7, B3, B83, B84, IB2, N34, T8, TP2, TP12
Packaging exceptions	154
Packaging non bulk	202
Packaging bulk	242

### IATA

UN number	UN1830
UN proper shipping name	Sulfuric acid
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	8L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

### IMDG

UN number	UN1830
UN proper shipping name	Sulfuric acid
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.

DOT



IATA; IMDG



### 15. Regulatory information

#### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Sulfuric Acid (CAS 7664-93-9) Listed.

#### SARA 304 Emergency release notification

Sulfuric Acid (CAS 7664-93-9) 1000 LBS

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

##### SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
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Sulfuric Acid	7664-93-9	1000	1000 lbs		
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SARA 311/312 Hazardous chemical Yes

##### SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Sulfuric Acid	7664-93-9	90 - 100

#### Other federal regulations

##### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

##### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Sulfuric Acid (CAS 7664-93-9)



**Safe Drinking Water Act (SDWA)** Not regulated.

**DEA Essential Chemical Code Number**

Sulfuric Acid (CAS 7664-93-9) 6552

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Sulfuric Acid (CAS 7664-93-9) 20 %WV

**DEA Exempt Chemical Mixtures Code Number**

Sulfuric Acid (CAS 7664-93-9) 6552

**US state regulations**

**US - California Candidate Chemicals: Listed on initial list**

Sulfuric Acid (CAS 7664-93-9)

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. Massachusetts RTK - Substance List**

Sulfuric Acid (CAS 7664-93-9)

**US. New Jersey Worker and Community Right-to-Know Act**

Sulfuric Acid (CAS 7664-93-9)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Sulfuric Acid (CAS 7664-93-9)

**US. Rhode Island RTK**

Sulfuric Acid (CAS 7664-93-9)

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Sulfuric Acid (CAS 7664-93-9) Listed: March 14, 2003

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 03-09-2015  
**Revision date** 05-19-2015  
**Version #** 04

**HMIS® ratings**

Health: 3\*  
Flammability: 0  
Physical hazard: 2  
Personal protection: H

**NFPA ratings**

Health: 3  
Flammability: 0  
Instability: 2  
Special hazards:-W

**Disclaimer**

Harcros cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Material Safety Data Sheet has been obtained from sources believed to be reliable. Harcros Chemicals Inc., provides no warranties, either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration, and investigation. You should satisfy yourself that you have all current data relevant to your particular use. Harcros Chemicals Inc., knows of no medical condition, other than those noted on this Material Safety Data Sheet, which are generally recognized as being aggravated by exposure to this product.

**Revision Information**

Product and Company Identification: Product and Company Identification  
Regulatory Information: United States

3/19/09

Sulfuric Acid 66 BE  
POLY DRUM

Harcros Chemicals Inc

Kansas City, Kansas

MATERIAL SAFETY DATA SHEET Page 1

PRODUCT NAME : SULFURIC ACID 66BE  
PRODUCT CODE : 07983

Date: 11-SHP-1998 15:00:01.47

BULK BIN/N-CA

CAS #: 007664939

MSDS NO. 001776 Revision No./Date 01 940120  
Detail Number 00065/01

FORMULA: H2 S O4

CHEM. FAMILY: inorganic acids

CHEMICAL NAME AND SYNONYMS:

Sulfuric Acid 93.24;

Sulfuric Acid 66 Degree Baume;

Sulfuric Acid 1.835;

Sulphuric Acid;

Battery Acid;

MSDS 001776, DETAIL 00065

SUPPLIERS NAME : Harcros Chemicals Inc.

5200 Spaker Road

Kansas City KS 66106-1095

SUPPLIERS PHONE NUMBER : 913-321-3131

TRANSPORTATION EMERGENCY PHONE NUMBER : 1-800-424-9300

S.A.R.A. INFORMATION

HAZARDS : Acute Reactivity  
PHYSICAL DATA : Mixture Liquid

SECTION I HAZARDOUS INGREDIENTS

Ingredient Cas Number	MAX % W/W	SARA APPLIES 312 313 372	AIR CONTAMINMENT LEVELS		SKIN AGENT
			TWA/TLV (ppm)	STEL (ppm) CEIL (ppm)	
Sulfuric Acid Sulphuric Acid (CAS # 7664-93-9 )	94.0	Y Y	0.25 0.25	0.75 0.75	N N OSHA ACGIH

SECTION II HEALTH HAZARDS

POTENTIAL EFFECTS OF EXPOSURE

EYES

Eye contact with product may cause burns irreversible damage blindness

SKIN

Skin contact may cause burns tissue destruction  
prolonged or repeated skin contact may cause dermatitis

INHALATION

Inhalation may cause sneezing coughing breathing difficulty chemical pneumonia excess fluid  
retention (pulmonary edema) irreversible damage

Continued On Page 2

Harcros Chemicals Inc  
Kansas City, Kansas

MATERIAL SAFETY DATA SHEET Page 2

PRODUCT NAME : SULFURIC ACID 65BE  
PRODUCT CODE : 07983

Date: 11-SEP-1998 15:00:01.85

BULK BIN/#-CA

SECTION II HEALTH HAZARDS

(CONTINUED)

INGESTION

Ingestion may cause burns tissue perforation shock symptoms (rapid pulse, sweating, collapse) even death

TARGET ORGANS

OVEREXPOSURE MAY CAUSE DAMAGE TO,

all body tissues

FIRST AID

FIRST AID EYES

Immediately Flush eyes with plenty of water for at least 15 minutes, while holding eyelids apart to ensure flushing of entire surface. Call a physician.

FIRST AID SKIN

Immediately Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly clean clothing before reuse. Discard contaminated shoes and contaminated leather articles. Call a physician.

FIRST AID INHALATION

Remove to fresh air. If not breathing give artificial respiration, preferably mouth to mouth. If breathing is difficult give oxygen. Call a physician.

FIRST AID INGESTION

Do not induce vomiting. Rinse mouth with water. Dilute stomach contents by drinking water. If vomiting occurs spontaneously, keep head below hips to prevent breathing vomit into lungs. Call a physician immediately.

OTHER INFORMATION

ROUTES OF ENTRY

eye contact skin contact inhalation

OVEREXPOSURE MAY AGGRAVATE DISORDERS OF THE

eyes skin respiratory system

SECTION III SPECIAL PROTECTION

PROTECTIVE EQUIPMENT

PROTECTIVE EQUIPMENT EYES

chemical goggles faceshield Always wear eye protection when working with chemicals. Do Not wear contact lenses when working with chemicals.

PROTECTIVE EQUIPMENT SKIN

impervious gauntlet gloves acid proof clothing

PROTECTIVE EQUIPMENT INHALATION

If exposure limits are exceeded, or if exposure may occur, use a NIOSH/MSHA respirator approved for your conditions of exposure. Refer to the most recent NIOSH publications concerning chemical hazards, or consult your safety equipment supplier. Respiratory protection programs must be in compliance with OSHA requirements in 29 CFR 1910.134. For emergencies, a NIOSH/MSHA approved positive pressure breathing apparatus should be readily available.

VENTILATION REQUIRED:

Adequate ventilation is required to minimize exposure or to maintain exposure levels below OSHA/ACGIH requirements. Local mechanical ventilation may be required.

ADDITIONAL PROTECTIVE MEASURES

Continued On Page 3

Harcros Chemicals Inc  
Kansas City, Kansas

MATERIAL SAFETY DATA SHEET Page 3

PRODUCT NAME : SULFURIC ACID 66BR  
PRODUCT CODE : 0799J

Date: 11-SEP-1998 15:00:02.24

BULK BIN/#-CA

SECTION III SPECIAL PROTECTION

(CONTINUED)

safety shower, eye wash fountain, and washing facilities should be readily available. In case of emergency or when dusting, misting, or splashing may occur, wear respiratory protection, eye protection, gloves, helmet, boots, and complete protective body covering.

SECTION IV FIRE & EXPLOSION HAZARD DATA

Flash Point (METHOD): > OR = N/A  
Flammable Limits (% Volume in Air) UPPER: N/D LOWER: N/D

HMSL Info Health : 3 NFPA Info Health : 3  
Fire : 0 Fire : 0  
React : 2 React : 2  
Special : X Special :

EXTINGUISHING MEDIA

media appropriate for surrounding fire  
FIRE FIGHTING PROCEDURES

Prevent human exposure to fire, fumes, smoke, and products of combustion. Evacuate non essential personnel. Firefighters should wear full face, self contained breathing apparatus and impervious protective clothing. Use water to cool containers exposed to fire.  
UNUSUAL FIRE & EXPLOSION HAZARDS  
none currently known

SECTION V PHYSICAL DATA

Boiling Point: > OR = 535 deg. F  
Freezing Point: -26 deg. F  
Specific Gravity (H(2)O=1): > OR = 1.8350 @ 60 deg. F  
Vapor Pressure (MM HG.): < OR = 0.300 @ 77 deg. F  
Vapor Density (AIR=1) : > OR = 3.40000  
Evaporation Rate ( N-Butyl Acetat -1): < 1.0000  
Solubility in Water: COMPLETE  
Percent Volatile by Volume: N/D  
pH: aqueous approx. < 1.000  
Appearance:  
COLORLESS TO LIGHTLY COLORED LIQUID

Odor :  
SHARP

SECTION VI REACTIVITY DATA

STABILITY

Continued On Page 4

Harcros Chemicals Inc  
Kansas City, Kansas

MATERIAL SAFETY DATA SHEET Page 4

PRODUCT NAME : SULFURIC ACID 65BB  
PRODUCT CODE : 079B3

Date: 11-SRP-1998 15:00:02.66

BULK BIN/#-CA

SECTION VI REACTIVITY DATA

(CONTINUED)

Stable  
INCOMPATIBILITY  
metals/metal blends hydrocarbons inorganic bases organic acids bryanic bases water  
Contact with some metals can generate explosive hydrogen gas. Contact with water will generate  
heat, cause violent splashing and spattering.

HAZARDOUS DECOMPOSITION PRODUCTS

oxides of sulfur

HAZARDOUS POLYMERIZATION

Will not occur

SECTION VII SPILL AND LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Evacuate non essential personnel, eliminate ignition sources, and wear protective equipment (See Section III). Shut off source of leak only if safe to do so. Contain spill. Recover free product. To clean up residue, flush sparingly with water or use an absorbent. Avoid runoff to ground water, surface waters, and sewers. It may be necessary to remove contaminated soil. If product is flammable or combustible, use non sparking tools. If acidity (low pH) is a problem, neutralize with hydrated lime, soda ash, or sodium bicarbonate. If alkalinity (high pH) is a problem neutralize with dilute acetic acid or dilute hydrochloric (muriatic) acid. If required, notify state and local authorities.

DISPOSAL METHOD

Solids must be disposed of in a permitted waste management facility. Recovered liquids may be reprocessed or incinerated. Incineration must be handled in a permitted hazardous waste management facility. Dispose of material in accordance with all Federal, State and local regulations. Local regulations may be more stringent than Federal or State.

SECTION VIII

Proper Shipping Name: SULFURIC ACID

Hazard Class: 8, UN1830, PGII  
Label Requirements: CORROSIVE  
Reportable Quantity: None

SECTION IX ADDITIONAL INFORMATION

LABEL SIGNAL WORD  
DANGER

PRECAUTIONS

Wear protective equipment when handling. Use only with adequate ventilation. Wash thoroughly after handling. Do Not breathe vapor or mist. Do Not get in eyes, on skin, or clothing. Keep from contact with clothing or other combustible materials.  
Do not swallow.

Continued On Page 5

Harcros Chemicals Inc  
Kansas City, Kansas

MATERIAL SAFETY DATA SHEET Page 5

PRODUCT NAME : SULFURIC ACID 66BE  
PRODUCT CODE : 07983

Date: 11-SEP-1990 15:00:03.10

BULK BIN/#-CA

SECTION IX ADDITIONAL INFORMATION

(CONTINUED)

HANDLING

For industrial use only. Loosen closures carefully. When diluting, add product slowly to water with agitation. Heat is generated upon dilution with water. Addition of water can cause violent splashing.

STORAGE

Keep container closed when not in use. Store in a cool dry place. Store out of direct sunlight and away from heat. Keep out of reach of children.

SECTION X COMPLIANCE INFORMATION

TSCA INVENTORY STATUS :  
Listed

NAME: GENE TURNER

DATE ISSUED: 946528  
DATE REVISED: 940120  
UNK = UNKNOWN

< = LESS THAN  
> = MORE THAN

N/A = NOT APPLICABLE  
N/D = NOT DETERMINED  
N/E = NOT ESTABLISHED

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