



CANADA COLORS & CHEMICALS LTD
80 SCARSDALE ROAD
DON MILLS, ONTARIO, CANADA M3B 2R7
(416)-449-7750

PRODUCT : SULPHURIC ACID 98/99%

CODE: 899187

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER.....SULCO CHEMICALS LTD.
60 FIRST STREET EAST
ELMIRA, ONTARIO
N3B 2Z5

PREPARED BY.....ENVIRONMENTAL & REGULATORY AFFAIRS DEPARTMENT

PREPARATION DATE.....JUL 29/2002

PRODUCT NAME.....SULPHURIC ACID 98/99%

PRODUCT CODE.....899187

CHEMICAL FORMULA.....H2SO4

MOLECULAR WEIGHT.....98.07

CHEMICAL FAMILY.....INORGANIC

MATERIAL USE.....BATTERY ACID. FERTILIZERS. PICKLING AGENT. DEHYDRATING
AGENT. WASTE WATER TREATMENT

EMERGENCY PHONE NO.....(416)-444-2112

SECTION 02: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

EXPOSURE LEVELS

LD/50, ROUTE, SPECIES

LC/50, ROUTE, SPECIES

** AS PER % ***

HAZARDOUS INGREDIENTS	EXPOSURE LEVELS	LD/50, ROUTE, SPECIES	LC/50, ROUTE, SPECIES
SULPHURIC ACID	1 MG/M3 TWA	2140 MG/KG (ORL-RAT)	510 MG/M3/2H
% :70-100	(ACGIH 1993-94)		(RAT, IHL)
CAS #:7664-93-9			

SECTION 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:

SKIN CONTACT.....CONTACT OF UNDILUTED PRODUCT WITH THE SKIN OR EYES QUICKLY
CAUSES SEVERE IRRITATION AND PAIN AND MAY CAUSE BURNS,
NECROSIS AND PERMANENT INJURY. FOR DILUTE SOLUTIONS:
PROLONGED OR REPEATED CONTACT MAY CAUSE DRYING, CRACKING OR
IRRITATION.

SKIN ABSORPTION.....N.AV.

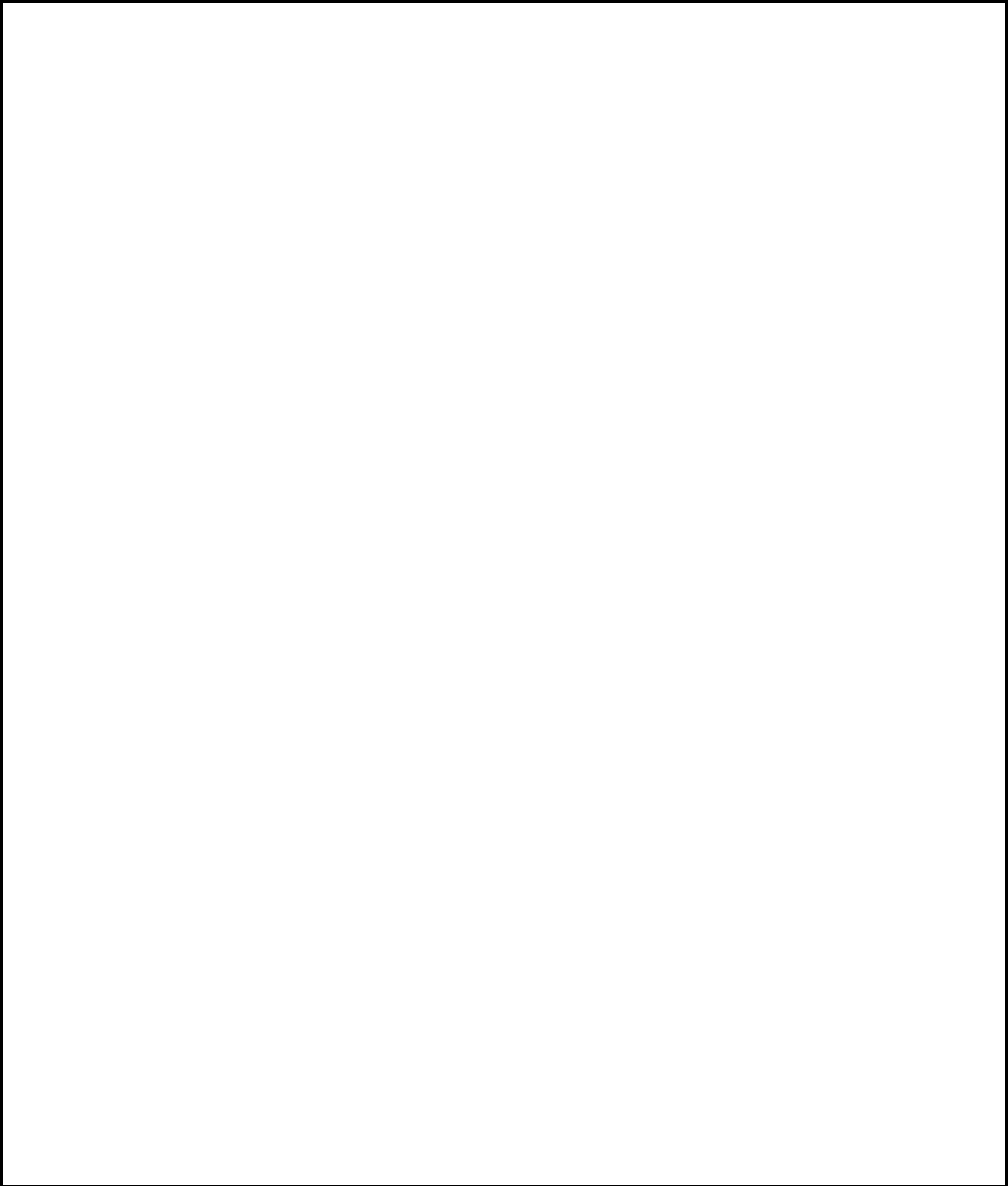
EYE CONTACT.....CONTACT OF LIQUID WILL CAUSE SEVERE BURNS. MAY RESULT IN
PERMANENT IMPAIRMENT OF VISION, EVEN BLINDNESS.

INHALATION.....MISTS AND VAPOURS MAY CAUSE SEVERE IRRITATION TO THE
RESPIRATORY TRACT.

INGESTION.....CAN CAUSE SEVERE BURNING AND PAIN IN LIPS, MOUTH, TONGUE,
THROAT AND STOMACH. MAY CAUSE NAUSEA, VOMITING, AND
DIARRHEA, BLEEDING OR TISSUE ULCERATION. MAY CAUSE DELAYED
GASTRIC OR OESOPHAGEAL PERFORATION. SWALLOWING MAY BE FATAL.

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SECTION 05: FIRE FIGHTING MEASURES

UPPER FLAMMABLE LIMIT (% BY.....N.AP.
VOL.)

LOWER FLAMMABLE LIMIT (% BY.....N.AP.
VOL.)

EXPLOSION DATA

EXPLOSIVE POWER.....N.AV.

RATE OF BURNING.....N.AV.

SENSITIVITY TO STATIC.....N.AV.

DISCHARGE

SENSITIVITY TO IMPACT.....N.AV.

UNUSUAL FIRE AND EXPLOSION.....EVOLUTION OF EXPLOSIVE HYDROGEN GAS ON CONTACT WITH MOST
HAZARDS METALS. TOXIC GASES (SULPHURIC ACID FUMES, SULPHUR DIOXIDE
AND CARBON MONOXIDE) MAY BE RELEASED DUE TO THERMAL
DECOMPOSITION.

HAZARDOUS COMBUSTION PRODUCTS....SULPHURIC ACID DECOMPOSITION MAY RESULT IN THE RELEASE OF
TOXIC GASES (SULPHURIC ACID FUMES, SULPHUR DIOXIDE, CARBON
MONOXIDE).

SECTION 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL.....NOTIFY FIRE AND ENVIRONMENTAL AUTHORITIES. UTILIZE FULL
PROTECTIVE CLOTHING, INCLUDING BOOTS AND SELF-CONTAINED
BREATHING APPARATUS. CONTAIN SPILL IN ORDER TO PREVENT
CONTAMINATION OF SEWAGE SYSTEM OR WATERWAY. REMOVE ALL
SOURCES OF IGNITION. IF POSSIBLE NEUTRALIZE ON A DRY BASIS
WITH SUITABLE ALKALI SUCH AS LIME, SODA ASH OR SODIUM
BICARBONATE. FLUSH WITH WATER IN ACCORDANCE WITH APPLICABLE
REGULATIONS. PUMP SPILLED MATERIAL INTO MARKED CONTAINERS
FOR RECLAMATION OR DISPOSAL. FOLLOW ALL APPLICABLE FIRE AND
EXPLOSION PRECAUTIONS DURING THE SPILL RESPONSE PROCEDURE.

SECTION 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND.....AVOID ALL SKIN CONTACT. AVOID GETTING IN EYES. KEEP AWAY
EQUIPMENT FROM HEAT, SPARKS, AND OPEN FLAME. USE ADEQUATE
VENTILATION. KEEP CONTAINERS CLOSED OR SEALED. WEAR

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SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE.....PVC OR NEOPRENE.
RESPIRATORY/TYPE.....USE NIOSH APPROVED SUPPLIED-AIR RESPIRATOR
EYE/TYPE.....SPLASH PROOF CHEMICAL GOGGLES
FOOTWEAR/TYPE.....BOOTS
CLOTHING/TYPE.....WEAR IMPERVIOUS PROTECTIVE CLOTHING
OTHER/TYPE.....EYE BATH AND SAFETY SHOWER.
ENGINEERING CONTROLS.....VENTILATE ADEQUATELY.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE.....LIQUID
ODOUR.....NO ODOUR
ODOUR THRESHOLD.....>1 MG/M3
VAPOUR PRESSURE (MMHG).....0.0018
VAPOUR DENSITY (AIR=1).....3.4
EVAPORATION RATE.....N.AP.
BOILING POINT.....70%: N.AV. 80%: N.AV. 93.19% : 287 C. 96.00% : 319 C.
98.00% : 334 C. 100% : 274 C
PH.....<1
SPECIFIC GRAVITY (WATER=1).....70%: N.AV. 80%: N.AV. 93.19% : 1.8354. 96.00% : 1.8427.
98.00% : 1.8437. 100% : 1.8391
SOLUBILITY IN WATER (% W/W).....MISCIBLE
COEFFICIENT OF WATER/OIL DIST....N.AV.

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:
YES.....YES
NO, WHICH CONDITIONS?
COMPATABILITY WITH OTHER
SUBSTANCES:
YES
NO, WHICH ONES?.....HIGHLY REACTIVE WITH MANY MATERIALS INCLUDING WATER,
METALS, METAL OXIDES, CARBIDES, CHLORATES, PICRATES,
NITRATES, HYDROXIDES, AMINES, CARBONATES AND OTHER ALKALINE
MATERIALS. REACTIONS CAN GENERATE A GREAT DEAL OF HEAT AS
DOES THE DILUTION OF ACID WITH WATER.
CONDITIONS TO AVOID:.....CONCENTRATED ACID IS STRONG OXIDIZING AGENT. MAY CAUSE
IGNITION OF COMBUSTIBLE MATERIAL ON CONTACT WITH GENERATION
OF TOXIC FUMES. AVOID OPEN FLAMES AND SPARKS.
REACTIVITY CONDITIONS?.....EXCESSIVE HEAT, SPARKS AND OPEN FLAME.
HAZARDOUS PRODUCTS OF.....SEE HAZARDOUS COMBUSTION PRODUCTS
DECOMPOSITION
HAZARDOUS POLYMERIZATION.....WILL NOT OCCUR

SECTION 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL.....1 MG/M3 (0.25 PPM)

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CARCINOGENICITY OF MATERIAL.....WHO AND IARC HAVE CONCLUDED THAT OCCUPATION EXPOSURE TO STRONG INORGANIC ACID MISTS CONTAINING SULFURIC ACID IS CARCINOGENIC TO MAN, CAUSING CANCER OF THE LARYNX AND, TO A LESSER EXTENT, THE LUNG. EXPOSURE TO ANY MIST OR AEROSOL DURING THE USE OF THIS PRODUCT SHOULD BE AVOIDED AND, IN ANY CASE, KEEP EXPOSURES BELOW THE OCCUPATIONAL EXPOSURE LIMIT FOR SULFURIC ACID.

REPRODUCTIVE EFFECTS.....NONE

IRRITANCY OF MATERIAL.....SEE SECTION 03

SENSITIZING CAPABILITY OF.....REPEATED EXPOSURE TO SULPHURIC ACID MIST MAY INCREASE TOLERANCE OF IRRITANT EFFECTS. SENSITIZATION CAN DEVELOP AFTER BRIEF OR PROLONGED EXPOSURE, SUBSEQUENT EXPOSURES CAN RESULT IN ASTHMATIC ATTACKS.

SYNERGISTIC MATERIALS.....NONE

SECTION 12: ECOLOGICAL CONSIDERATIONS**SECTION 13: DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL.....IN ACCORDANCE WITH MUNICIPAL, PROVINCIAL AND FEDERAL REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

UN NUMBER.....1830

TDG CLASSIFICATION.....8

PACKING GROUP.....II

SPECIAL SHIPPING INSTRUCTIONS....ERAP REQUIRED FOR LARGE MEANS OF CONTAINMENT.

SECTION 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION.....D1A. E

CPR COMPLIANCE.....THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

SECTION 16: OTHER INFORMATION

N.AV.=NOT AVAILABLE

N.AP.=NOT APPLICABLE