MATERIAL SAFETY DATA SHEET

FISHER SCIENTIFIC
CHEMICAL DIVISION
1 REAGENT LANE
FAIR LAWN, NJ 07410
(201) 798-7100

DATE: 08/14/93  INDEX: N/A  ACCT: 888235-01  PO NBR: N/A
CAT NO: S459500

THIS INFORMATION IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST
INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, WE MAKE NO WARRANTY
OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO
SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS
SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE
INFORMATION FOR THEIR PARTICULAR PURPOSES.

SUBSTANCE IDENTIFICATION

SUBSTANCE: D-SORBITOL
CAS-number: 50-70-4

TRADE NAMES/SYNONYMS:
D-Glucitol; Sorbitol; L-Glucitol; Sorbit; Sorbic-Olan; Sorbo; Sorboxy; Norit; Cholesterol; Karion; Sunol; Xylox; Sorbinol; Diakarol; D-Sorbit; Hexaray Alcohol; 1, 2, 3, 4, 5, 6-Tetraol; C6H14O6; 5459, 5460, 5462, 5463, 5464, 5465, 5466, 5467, 5468, ACC00175

CHEMICAL FAMILY: Alcohol, Aliphatic

MOLECULAR FORMULA: C6H14O6

MOLECULAR WEIGHT: 182.17

CERCLA RATING (S SCALE 0-3): HEALTH=1 FIRE=1 REACTIVITY=0 PERSISTENCE=1

NPPA RATING (SCALE 0-4): HEALTH=U FIRE=1 REACTIVITY=0

COMPONENTS AND CONTAMINANTS

COMPONENT: D-SORBITOL
PERCENT: 100

OTHER CONTAMINANTS: NONE

EXPOSURE LIMITS: NO OCCUPATIONAL EXPOSURE LIMITS ESTABLISHED BY OSHA, ACGIH, OR NIOSH.

PHYSICAL DATA

DESCRIPTION: Odorless, Colorless or white, hygroscopic powder, granules or
flakes with a sweet taste. Boiling point: 563 F (265 C) @ 3.5 mmHg

MELTING POINT: 167 F (75 C)

SOLVENT SOLUBILITY: Soluble in acetic acid, isopropanol, acetone, butanol,
cyclohexan, phenol, dimethyformamide, acetamide solutions, pyridine,
glycerol, propylene glycol, slightly soluble in alcohol.

VISCOSITY: 110 CPS @ 25 C

FIRE AND EXPLOSION DATA

DUST-AIR MIXTURES MAY IGNITE OR EXPLODE.

FLASH POINT: 542 F (283 C) (OC)
LOWER EXPLOSIVE LIMIT: 22 G/FT3
LOWER AUTOIGNITION TEMPERATURE: 1200 F (649 C)

FIREFIGHTING MEDIA:
Dry Chemical, Carbon dioxide, Water spray or regular foam

FOR LARGER FIRES, USE WATER SPRAY, FOAM OR REGULAR FOAM

FIRE AND EXPLOSION HAZARD: SUFFOCATE FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME.

REACTIONS: STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.


ALCOHOLS: MACRODEHYDE: VIOLENT CONDENSATION REACTION. BARBARI PERCHLORATE: FORMATION OF HIGHLY EXPLOSIVE PERCHLORIC ESTER ON HEATING. CHLORINE: FORMATION OF HIGHLY EXPLOSIVE ALKYL HYPOCHLORITES. PHOSPHOR: ALUMINIUM PHOSPHIDE: SPOONTANEOUS IGNITION.
ETHYLENE OXIDE: POSSIBLE EXPLOSION.
HEXAMETHYLENEDIISOCYANATE: POSSIBLE EXPLOSION IN ABSENCE OF SOLVENT.
HYDROGEN PEROXIDE + SULFURIC ACID: POSSIBLE EXPLOSION.
HYPOCHLOROUS ACID: FORMATION OF HIGHLY EXPLOSIVE ALKYL HYPOCHLORITES.
ISOcyanates: POSSIBLE EXPLOSION IN ABSENCE OF SOLVENT.
LITHIUM ALUMINUM HYDRIDE: VIGOROUS REACTION.
NITROGEN TETRAOXIDE: POSSIBLE EXPLOSION.
PERCHLORIC ACID (HOT): DANGEROUS REACTION.
PERMETHYLSULFURIC ACID: POSSIBLE EXPLOSION ON CONTACT WITH PRIMARY OR
SECONDARY ALCOHOLS.
TRI-ISOBUTYL ALUMINUM: VIOLENT REACTION.

DECOMPOSITION:
THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE TOXIC OXIDES OF CARBON.

POLYMERIZATION:
HAZARDOUS POLYMERIZATION HAS NOT BEEN REPORTED TO OCCUR UNDER NORMAL
TEMPERATURES AND PRESSURES.

STORAGE AND DISPOSAL

OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN STORING OR DISPOSING
OF THIS SUBSTANCE.

**STORAGE**

STORE AWAY FROM INCOMPATIBLE SUBSTANCES.

KEEP IN A TIGHTLY CLOSED CONTAINER. STORE IN A COOL, DRY, VENTILATED AREA.

CONDITIONS TO AVOID

MAY BURN BUT DOES NOT IGNITE READILY. AVOID CONTACT WITH STRONG OXIDIZERS,
EXCESSIVE HEAT, SPARKS, OR OPEN FLAME.

SPILL AND LEAK PROCEDURES

OCCUPATIONAL SPILL:
SWEEP UP AND PLACE IN SUITABLE CLEAN, DRY CONTAINERS FOR RECLAMATION OR LATER
DISPOSAL. DO NOT FLUSH SPILLED MATERIAL INTO SEWER. KEEP UNNECESSARY PEOPLE
AWAY.

PROTECTIVE EQUIPMENT

VENTILATION:
PROVIDE LOCAL EXHAUST VENTILATION. VENTILATION EQUIPMENT MUST BE EXPLOSION
PROOF.

RESPIRATOR:
THE FOLLOWING RESPIRATORS ARE RECOMMENDED BASED ON INFORMATION FOUND IN
THE PHYSICAL DATA, TOXICITY AND HEALTH EFFECTS SECTIONS. THEY ARE RANKED IN
ORDER FROM MINIMUM TO MAXIMUM RESPIRATORY PROTECTION.

THE SPECIFIC RESPIRATOR SELECTED MUST BE BASED ON CONTAMINATION LEVELS FOUND
IN THE WORKPLACE. MUST BE BASED ON THE SPECIFIC OPERATION. MUST NOT EXCEED
THE WORKING LIMITS OF THE RESPIRATOR AND MUST BE JOINTLY APPROVED BY THE
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH AND THE MINES
SAFETY AND HEALTH ADMINISTRATION (NIOSH-MSHA).

ANY DUST AND MIST RESPIRATOR.

ANY AIR-PURIFYING RESPIRATOR WITH A HIGH-EFFICIENCY PARTICULATE FILTER.

ANY POWERED AIR-PURIFYING RESPIRATOR WITH A DUST AND MIST FILTER.

ANY POWERED AIR-PURIFYING RESPIRATOR WITH A HIGH-EFFICIENCY PARTICULATE
FILTER.

ANY TYPE 'C' SUPPLIED-AIR RESPIRATOR OPERATED IN THE PRESSURE-DEMAND OR
OTHER POSITIVE PRESSURE OR CONTINUOUS-FLOW MODE.

ANY SELF-CONTAINED BREATHING APPARATUS.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS:

ANY SELF-CONTAINED BREATHING APPARATUS THAT HAS A FULL FACEPIECE AND IS
OPERATED IN A PRESSURE-DEMAND OR OTHER POSITIVE-PRESSURE MODE.

ANY SUPPLIED-AIR RESPIRATOR THAT HAS A FULL FACEPIECE AND IS OPERATED IN A
PRESSURE-DEMAND OR OTHER POSITIVE-PRESSURE MODE IN COMBINATION WITH AN
AUXILIARY SELF-CONTAINED BREATHING APPARATUS OPERATED IN PRESSURE-DEMAND
OR OTHER POSITIVE-PRESSURE MODE.

CLOTHING:
EMPLOYEE MUST WEAR APPROPRIATE PROTECTIVE (IMPERVIOUS) CLOTHING AND EQUIPMENT.