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# M A T E R I A L   S A F E T Y   D A T A   S H E E T

## SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -

CATALOG #: G7757  
NAME: GLYCEROL

## SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #: 56-81-5  
MF: C3H8O3  
EC NO: 200-289-5

### SYNONYMS

CITIFLUOR AF 2 \* GLYCERIN \* GLYCERIN, ANHYDROUS \* GLYCERINE \*  
GLYCERIN MIST (ACGIH, OSHA) \* GLYCERIN, SYNTHETIC \* GLYCERITOL \*  
GLYCYL ALCOHOL \* GLYCERIN, WASSERFREI (GERMAN) \* GROCOLENE \* MOON \*  
OSMOGLYN \* 1,2,3-PROPANETRIOL \* STAR \* SYNTHETIC GLYCERIN \* 90  
TECHNICAL GLYCERINE \* TRIHYDROXYPROPANE \* 1,2,3-TRIHYDROXYPROPANE \*

## SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -

### LABEL PRECAUTIONARY STATEMENTS

#### IRRITANT

IRRITATING TO EYES AND SKIN.

TARGET ORGAN(S):

KIDNEYS

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF  
WATER AND SEEK MEDICAL ADVICE.

WEAR SUITABLE PROTECTIVE CLOTHING.

## SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS  
AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED  
CLOTHING AND SHOES.

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.  
CALL A PHYSICIAN.

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL  
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

## SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

### EXTINGUISHING MEDIA

WATER SPRAY.

CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

### SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO  
PREVENT CONTACT WITH SKIN AND EYES.

### UNUSUAL FIRE AND EXPLOSIONS HAZARDS

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

## SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY  
RUBBER GLOVES.

ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR  
DISPOSAL.

VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

## SECTION 7. - - - - - HANDLING AND STORAGE- - - - -

REFER TO SECTION 8.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.

MECHANICAL EXHAUST REQUIRED.

SAFETY SHOWER AND EYE BATH.

DO NOT BREATHE VAPOR.

AVOID CONTACT WITH EYES, SKIN AND CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

WASH THOROUGHLY AFTER HANDLING.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

KEEP TIGHTLY CLOSED.

STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

PHYSICAL PROPERTIES

BOILING POINT: 182 C

MELTING POINT: 20 C

FLASHPOINT 320 F

160 C

EXPLOSION LIMITS IN AIR:

LOWER 0.9 %

VAPOR PRESSURE: < 1 MMHG

SOLUBILITY:

WATER -Z26130

SPECIFIC GRAVITY: 1.262

VAPOR DENSITY: 3.1 G/L

PH: 5.5 - 8

SECTION 10. - - - - - STABILITY AND REACTIVITY - - - - -

CONDITIONS TO AVOID

PROTECT FROM MOISTURE.

INCOMPATIBILITIES

PROTECT FROM MOISTURE.

STRONG OXIDIZING AGENTS

STRONG BASES

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

CARBON MONOXIDE, CARBON DIOXIDE

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.

CAUSES EYE AND SKIN IRRITATION.

PROLONGED EXPOSURE CAN CAUSE:

NAUSEA, HEADACHE AND VOMITING

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND

TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

CHRONIC EFFECTS

TARGET ORGAN(S):

KIDNEYS

RTECS #: MA8050000

GLYCEROL

IRRITATION DATA

SKN-RBT 500 MG/24H MLD

85JCAE -,207,1986

EYE-RBT 126 MG MLD

BIOFX\* 9-4/1970

EYE-RBT 500 MG/24H MLD

85JCAE -,207,1986

TOXICITY DATA

ORL-RAT LD50:12600 MG/KG

FEPRA7 4,142,1945

IHL-RAT LC50:>570 MG/M3/1H

BIOFX\* 9-4/1970

IPR-RAT LD50:4420 MG/KG

RCOCB8 56,125,1987

SCU-RAT LD50:100 MG/KG

NIIRDN 6,215,1982

IVN-RAT LD50:5566 MG/KG

ARZNAD 26,1581,1976

ORL-MUS LD50:4090 MG/KG

FRZKAP (6),56,1977

IPR-MUS LD50:8700 MG/KG  
SCU-MUS LD50:91 MG/KG  
IVN-MUS LD50:4250 MG/KG  
ORL-RBT LD50:27 GM/KG  
SKN-RBT LD50:>10 GM/KG  
IVN-RBT LD50:53 GM/KG  
ORL-GPG LD50:7750 MG/KG

ARZNAD 28,1579,1978  
NIIRDN 6,215,1982  
JAPMA8 39,583,1950  
DMDJAP 31,276,1959  
BIOFX\* 9-4/1970  
NIIRDN 6,215,1982  
JIHTAB 23,259,1941

TARGET ORGAN DATA

BEHAVIORAL (HEADACHE)  
GASTROINTESTINAL (NAUSEA OR VOMITING)  
PATERNAL EFFECTS (SPERMATOGENESIS)  
PATERNAL EFFECTS (TESTES, EPIDIDYMIS, SPERM DUCT)  
EFFECTS ON FERTILITY (MALE FERTILITY INDEX)  
EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)  
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES  
(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR  
COMPLETE INFORMATION.

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - -  
DATA NOT YET AVAILABLE.

SECTION 13. - - - - - DISPOSAL CONSIDERATIONS - - - - -  
DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A  
CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.  
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - TRANSPORT INFORMATION - - - - -  
CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - REGULATORY INFORMATION - - - - -

EUROPEAN INFORMATION

IRRITANT

R 36/38

IRRITATING TO EYES AND SKIN.

S 26

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF  
WATER AND SEEK MEDICAL ADVICE.

S 36

WEAR SUITABLE PROTECTIVE CLOTHING.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-TWA 10 MG/M3, INHALABLE PARTICULATE DTLVS\* TLV/BEI,1997

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION

FEREAC 54,7740,1989

MSHA STANDARD:NUISANCE PARTICULATES (MIST)

DTLWS\* 3,20,1973

OSHA PEL (GEN INDU):8H TWA 15 MG/M3, TOTAL DUST

CFRGBR 29,1910.1000,1994

OSHA PEL (GEN INDU):8H TWA 5 MG/M3, RESPIRABLE FRACTION

CFRGBR 29,1910.1000,1994

OSHA PEL (CONSTRUC):8H TWA 15 MG/M3, TOTAL DUST

CFRGBR 29,1926.55,1994

OSHA PEL (CONSTRUC):8H TWA 5 MG/M3, RESPIRABLE FRACTION

CFRGBR 29,1926.55,1994

OSHA PEL (SHIPYARD):8H TWA 15 MG/M3, TOTAL DUST

CFRGBR 29,1915.1000,1993

OSHA PEL (SHIPYARD):8H TWA 5 MG/M3, RESPIRABLE FRACTION

CFRGBR 29,1915.1000,1993

OEL-AUSTRALIA:TWA 10 MG/M3 JAN 1993

OEL-BELGIUM:TWA 10 MG/M3 JAN 1993

OEL-FINLAND:TWA 20 MG/M3 JAN 1993

OEL-THE NETHERLANDS:TWA 10 MG/M3 JAN 1993

OEL-UNITED KINGDOM:TWA 10 MG/M3 JAN 1993

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NOHS 1974: HZD 35085; NIS 358; TNF 86657; NOS 198; TNE 1085329

NOES 1983: HZD 35085; NIS 310; TNF 67054; NOS 215; TNE 2135546; TFE

1346631

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JUNE 1999

SECTION 16. - - - - - OTHER INFORMATION- - - - -

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