

MORTON THIOKOL, INC: MORTON CHEMICAL DIVISION -- SOLITHANE 113 -- 8030-00-180-6307  
===== Product Identification =====

Product ID: SOLITHANE 113

MSDS Date: 02/24/1989

FSC: 8030

NIIN: 00-180-6307

MSDS Number: BPRDC

=== Responsible Party ===

Company Name: MORTON THIOKOL, INC: MORTON CHEMICAL DIVISION

Address: 333 WEST WACKER DRIVE

City: CHICAGO

State: IL

ZIP: 60606-1292

Country: US

Info Phone Num: 312-807-3421

Emergency Phone Num: 815-338-1800 (24 HOURS)

CAGE: 07703

=== Contractor Identification ===

Company Name: CORDANT TECHNOLOGIES INC. THIOKOL PROPULSION

Address: 9160 N HWY 83

Box: 707

City: BRIGHAM CITY

State: UT

ZIP: 84302-0707

Phone: 435-863-8545, 435-863-3325

CAGE: 07703

Company Name: MORTON INTERNATIONAL, INC

Address: 100 NORTH RIVERSIDE PLAZA

Box: City: CHICAGO

State: IL

ZIP: 60606

Country: US

Phone: 312-807-3422/714-373-2837 EXT

CAGE: 7W447

===== Composition/Information on Ingredients =====

Ingred Name:TOLUENE DIISOCYANATE/TDI (SARA III)

CAS:584-84-9

RTECS #:CZ6300000

Fraction by Wt: 6-7%

Other REC Limits:NONE SPECIFIED

OSHA PEL:C,0.02 PPM/0.02 STEL

ACGIH TLV:0.005PPM/0.02STEL;93

EPA Rpt Qty:100 LBS

DOT Rpt Qty:100 LBS

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===== Hazards Identification =====

LD50 LC50 Mixture:LD50:5800MG/KG ORL-RAT;MORE INFO ON FILE

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Health Hazards Acute and Chronic:SKIN: REDDENING, DRYNESS, DERMATITIS,  
SWE

LLING, BLISTERING. REPEAT CONTACT: SKIN SENSITIZATION. EYE:

HARMFUL. SEVERE IRRITATION, CORNEA EDEMA, MECHANICAL IRRIT.

INHALATION: RESPIRATORY TRACT MUCOUS ME MBRANE IRRIT, HEADACHE,  
NARCOTIC EFFECT, UNCONSCIOUSNESS, BREATHLESSNESS, CHEST DISCOMFORT,  
REDUCED PULMONARY FUNCTION.

Explanation of Carcinogenicity:TOLUENE DIISOCYANATE IS CONSIDERED A  
SUSPECT CARCINOGEN AS TESTED BY NTP IN RATS & FEMALE MICE.

Effects of Overexposure:INGEST: IRRITATION, CORROSIVE ACTION ON MOUTH &

STOMACH TISSUE. GI IRRIT, NAUSEA, DROWSINESS, UNCONSCIOUSNESS.

IRRITATION OF EYES, NOSE & THROAT. WEAKNESS. ASTHMATIC SYMPTOMS.

Medical Cond Aggravated by Exposure:PERSONS W/PRE-EXISTING SKIN

DISORDERS, PERSONS W/IMPAIRED PULMONARY FUCTION, ESPECIALLY  
OBSTRUCTIVE AIRWAY DISEASES, & PERSONS W/PRE-EXISTING PULMONARY  
PROBLEMS SUCH AS ASTHMA MAY BE MORE SUSCEPTIBLE.

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===== First Aid Measures =====

First Aid:EYE: IMMEDIATELY RINSE W/CONSTANT S

TREAM OF FRESH WATER 15

MIN, LIFTING EYELIDS FREQUENTLY. SEE DR IMMEDIATELY. SKIN: REMOVE  
CONTAMINATED CLOTHING & WASH EXPOSED SKIN W/WARM WATER & SOAP. IF  
IRRIT PRE SENT AFTER WASHING, GET MEDICAL ATTENTION. INHAL: REMOVE  
TO FRESH AIR. IF BREATHING HAS STOPPED PERFORM ARTIFICIAL  
RESPIRATION. KEEP WARM & AT REST. GET MED AID IMMED. INGEST: DONT  
INDUCE VOMITING.

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===== Fire Fighting Measures =====

Flash Point Method:SCC

Flash Point:>200F,

>93C

Extinguishing Media:USE FOAM, DRY CHEMICAL

Fire Fighting Procedures:FULL EMERGENCY EQUIPMENT WITH NIOSH/MSHA APPROVED SELF-CONTAINED FULL FACE POSITIVE PRESSURE BREATHING APPARATUS SHOULD BE WORN.

Unusual Fire/Explosion Hazard:NONE KNOWN

===== Accidental Release Measures =====

Spill Release Procedures:STOP SPILL, CONTAIN W/DIKE/BARRIER/ETC. RECOVER W/PUMPING EQUIP, VACUUM TRUCK, SORBENTS, OTHER MEANS. OPEN CNTNRS SHOULD NOT BE CLSD FOR DISPOSAL UNTIL ALL FOAMING/BUBBLING STOPPED. PLACE MATERIAL IN CNTNRS. HAZARDOUS, ABOVE RQ, CALL 800-424-8802.

Neutralizing Agent:NEUTRALIZE BY SOAKING W/5% AMMONIA SOLUTION OR WATER W/10% ISOPROPANOL.

===== Handling and Storage =====

Handling and Storage Precautions:USE W/VENT. BOND, GROUND CNTNRS DURING POURING, DISPENSING, MIXING. STORE BETWEEN 50 & 100F IN DRY AREA. STORAGE AT HIGHER TEMPS CAUSES POLYMERIZATION

Other Precautions:FOR INDUSTRIAL USE ONLY. USE WITH ADEQUATE VENTILATION. AVOID SKIN CONTACT. EYEWASH AND SHOWER SHOULD BE AVAILABLE. ALWAYS WASH-UP AFTER HANDLING AND BEFORE EATING, DRINKING, SMOKING OR USING RESTROOM FACILITIES.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:USE NIOSH/MSHA RESP PROTECTION W/IN EQUIP LIMITATIONS. CONSULT OSHA 29 CFR 1910.134, RESP PROTECTION. SCBA/AIRLINE RESPIRATORS MAY BE REQ'D FOR PROTECT AGAINST ISOCYANATE. CONSULT INDU ST HYGIENIST TO DETERMINE RESPIRATOR SELECTION,TRAINING.

Ventilation:EXHAUST VENTILATION AT ALL VAPOR RELEASE POINTS IS RECOMMENDED TO MAINTAIN VAPOR BELOW LOWEST TLV OF SUBSTANCE IN MIX.

Protective Gloves:CHEMICAL RESISTANT GLOVES

Eye Protection:SFTY GLASSES,FACE SHLD 8",CHEM GOGGLES

Other Protective Equipment:WORK CLOTHING FOR GENERAL BODY PROTECTION & OTHER PROTECTIVE CLOTHING AS NEEDED TO PREVENT REPEAT/PROLONG SKIN CONTACT.

Work Hygienic Practices:WASH THOROUGHLY AFTER HAND

LING PRODUCT. ALWAYS

WASH UP BEFORE EATING, DRINKING, SMOKING OR USING RESTROOM FACILITIES.

Supplemental Safety and Health

OBTAIN MEDICAL ATTENTION IMMEDIATELY, IF UNAVAILABLE CONTACT NEAREST POISON CONTROL CENTER. KEEP AFFECTED PERSON WARM AND AT REST. NOTE TO PHYSICIAN: SUPPORTIVE THERAPY IS RECOMMENDED. NO KNOWN ANTIDOTE. CAREFUL LAVAGE MAY BE INDICATED AFTER INGESTION.

===== Physical/Chemical Properties =====

HCC:T6

Boiling Pt:B.P. Text:482F

,250C

Vapor Density:>6

Spec Gravity:1.073 (WATER=1)

Evaporation Rate & Reference: