

MATERIAL SAFETY DATA SHEET

For R&D use only. Not for drug, household or other uses.

Click <http://www.lookchem.com/cas-584/584-84-9.html> for suppliers of this product.

Composition/Information on Ingredient

Cas:

584-84-9

Code:

M

RTECS:

CZ6300000

Code:

M

Name:

TOLUENE-2,4-DIISOCYANATE (TDI) (SARA 302/313) (CE)

Other REC Limits:

NONE RECOMMENDED

OSHA PEL:

C 0.02 PPM

Code:

M

OSHA STEL:**Code:****ACGIH TLV:**

0.005PPM/0.02STEL;96

Code:

M

ACGIH STEL:

N/P

Code:

Control Measures

Respiratory Protection:

NONE NORMALLY REQUIRED. IF ENGINEERING CONTROLS FAIL OR NON-ROUTINE USE OR AN EMERGENCY OCCURS; WEAR AN MSHA/NIOSH APPROVED RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE OR AN AIR-SUPPLIED RESPIRATOR OR SCBA, AS REQUIRED. USE IAW 29 CFR 1910.134.

Ventilation:

USE LOCAL EXHAUST NEAR THE SOURCE TO MAINTAIN EXPOSURE BELOW TLV(S).

Protective Gloves:

PVC, RUBBER, LATEX, NITRILE, BUTYL.

Eye Protection:

SAFETY GLASSES W/SIDE SHIELDS; GOGGLES.

Other Protective Equipment:

Equipment EYE WASH STATION & SAFETY SHOWER WITHIN REASONABLE DISTANCE FROM THE WORK AREA. 4

Work Hygienic Practices:

WASH HANDS AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDER CONTAMINATED CLOTHES BEFORE REUSE.

Supplemental Safety and Health:

N/P

Health Hazards Data

LD50/LC50 Mixture:

NONE SPECIFIED BY MANUFACTURER.

Route Of Entry Inds - Inhalation:

YES

Skin:

YES

Ingestion:

NO

Carcinogenicity Inds - NTP:

YES

IARC:

YES

OSHA:

NO

Health Hazards Acute And Chronic:

ACUTE: CONTACT WITH EYES MAY CAUSE IRRITATION. PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE IRRITATION. INGESTION MAY BE HARMFUL, MODERATELY TOXIC. INHALATION MAY BE HARMFUL; MAY CAUSE ALLERGIC REACTION. CHRONIC: NONE SPECIFIED BY MANUFACTURER.

Explanation Of Carcinogenicity:

BENZENE, 2,4-DIISOCYANATE-1-METHANE & BENZENE, 1,3-DIISOCYANATE-2-METHANE ARE LISTED AS ANTICIPATED (IARC 2B) CARCINOGEN

Signs And Symptoms Of Overexposure:

INHALED-ALLERGIC REACTION SIMILAR TO ASTHMA. INGESTION-VOMITING. EYES-IRRITATION. SKIN-IRRITATION.

Medical Cond Aggravated By Exposure:

PRE-EXISTING SKIN & EYE DISORDERS. PRE-EXISTING SKIN AND LUNG DISORDERS MAY INCREASE CHANCE OF ALLERGIC REACTION.

First Aid:

IN ALL CASES GET MEDICAL ATTENTION. EYES-IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. SKIN-REMOVE CONTAMINATED CLOTHES. WASH OFF WITH FLOWING WATER. INHALED-REMOVE TO FRESH AIR. ADMINISTER OXYGEN OR A RTIFICIAL RESPIRATION AS NEEDED. INGESTED-DO NOT INDUCE VOMITING! NOTE TO PHYSICIAN: TREATMENT SHOULD BE DIRECTED AT THE CONTROL OF SYMPTOMS AND THE CLINICAL CONDITIONS.

Spill Release Procedures:

ELIMINATE ALL SOURCES OF IGNITION. CONTAIN SPILL, ABSORB W/SAND/DIRT. PREVENT RUN-OFF TO STORM SEWERS, DITCHES, WATERWAYS. SHOVEL/SCRAPE (NONMETALLIC) ABSORBED WASTE MATERIAL INTO DISPOSAL CONTAINER. SEAL LID W/TAPE OR LOCKING RING & LABEL PROPERLY. 3

Neutralizing Agent:

NONE SPECIFIED BY MANUFACTURER.

Waste Disposal Methods:

REUSE OR REINTRODUCE INTO PROCESS; RECLAIM/REGENERATE/RECYCLE; BURN FOR ENERGY RECOVERY OR INCINERATE. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

Handling And Storage Precautions:

STORE IN A COOL, DRY PLACE BELOW 25C (77F) AND AWAY FROM SOURCES OF IGNITION. KEEP CONTAINERS CLOSED AND TIGHTLY SEALED.

Other Precautions:

PLASTIC CONTAINERS MAY BE SLIPPERY WHEN HANDLED. DO NOT EXPOSE TO DIRECT SUNLIGHT. ONCE CONTAINER IS OPENED, USE NITROGEN BLANKET ON MATERIAL AND RESEAL.

Fire and Explosion Hazard Information

Flash Point Method:

CC

Flash Point:**Flash Point Text:**

89.0F, 31.7C

Autoignition Temp:**Autoignition Temp Text:**

N/K

Lower Limits:

UNKNOWN

Upper Limits:

UNKNOWN

Extinguishing Media:

WATER FOG, CARBON DIOXIDE, DRY CHEMICAL, FOAM.

Fire Fighting Procedures:

WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL FIRE FIGHTER'S PROTECTIVE GEAR.

Unusual Fire/Explosion Hazard:

NO UNUSUAL FIRE OR EXPLOSION HAZARDS.

Physical/Chemical Properties

HCC:

F3

NPC/State LC No:

N/R

Net Prop WT For Ammo:

N/K

Boiling Point:

N/K

B.P. Text:

UNKNOWN

Melt/Freeze Pt:

N/K

M.P/F.P Text:

UNKNOWN

Decomp Temp:

UNKNOWN

Decomp Text:

UNKNOWN

Vapor Pres:

9.5

Vapor Density:

3.7

Volatile Org Content %:

N/K

Spec Gravity:

1.0

VOC Pounds/Gallon:

N/K

PH:

N/K

VOC Grams/Liter:

550

Viscosity:

MEDIUM

Evaporation Rate & Reference:

0.5 (METHOD NOT GIVEN)

Solubility in Water:

APPRECIABLE

Appearance and Odor:

LIQUID, MEDIUM VISCOSITY, AMBER COLOR, AROMATIC ODOR.

Percent Volatiles by Volume:

53

Corrosion Rate:

UNKNOWN

Exothermic:

YES

Conditions To Avoid Polymerization:

EXOTHERMIC

Toxicological Information

Information:

N/P

MSDS Transport Information

Information:

N/P

Regulatory Information

Sara Title III Information:

N/P

Federal Regulatory Information:

N/P

State Regulatory Information:

N/P

Other Information

Other Information:

N/P

Other Information