MATERIAL SAFETY DATA SHEET For R&D use only. Not for drug, household or other uses.

Composition/Information on Ingredient Cas: 108-88-3

Click http://www.lookchem.com/cas-108/108-88-3.html for suppliers of this product.

RTECS:

Code: Μ

XS5250000 Code: М Name: TOLUENE (SARA 313) (CERCLA) VP = 22 @ 20C Other REC Limits: NONE RECOMMENDED

OSHA PEL: NOT ESTABLISHED Code: Μ **OSHA STEL:**

Code:

ACGIH TLV:

50 PPM Code: M **ACGIHSTEL:** Code:

Control Measures

Respiratory Protection:

CONFINED AREAS, APPROVED AIRLINE-TYPE RESPIRATORS OR HOODS. NIOSH APPROVED RESPIRATOR

DURING/AFTER APLIC ATION.

4 OPEN AREAS, APPROVED MECHANICAL RESPIRATOR. RESTRICTED AREAS, APPROVED CHEM/MECHANICAL FILTERS.

Ventilation: APPROVED SPRAY BOOTH, GENERAL DILUTION, LOCAL EXHAUST IN VOLUME AND PATTERN SUFFICIENT TO KEEP LEVELS BELOW TLV. **Protective Gloves: REQUIRED**

Eye Protection: SPLASH PROOF GOGGLES

** DONT ATTEMPT TO CLEAN RESIDUE. DISPOSE OF CONTAINER IN ENVIRONMENTALLY SAFE MANNER IN

ACCORDANCE W/GOVERNMENT REGULATIONS. FOR WORK ON TANK, REFER TO OSHA ANSI 249.1 & OTHER

INHAL: IRRITATION OF RESPIRATORY TRACT, NS DEPRESSION, HEADACHE, DIZZY, STAGGERING GAIT, CONFUSION, UNCONSCIOUS,

INHAL: REMOVE TO FRESH AIR, GIVE OXYGEN, GET MED AID. SKIN: WASH W/WATER, REMOVE CONTAM CLOTHING. LAUNDER BEFORE REUSE, GET MED AID. INGEST: GET MED AID. GIVE 1-2 GLASSES WATER. DONT INDUCE VOMIT. KEE P HEAD BELOW HIPS TO PREVENT

REMOVE ALL IGNIT SOURCES. MOP, ADD ABSORBENT. USE NON-SPARKING TOOLS. ADEQUATE VENT. MOVE LEAKING CONTAINERS

RECLAIM MATERIAL. INCINERATE OR USE SANITARY LANDFILL IN ACCORDANCE W/FEDERAL, STATE AND LOCAL REGULATIONS. DONT

STORE IN WELL VENTILATED WAREHOUSE. KEEP OUT OF SUNLIGHT OR HEAT. KEEP CONTAINERS CLOSED. NO SMOKING.

TRANSFER CONTENTS TO BOTTLES OR ANY UNLABELED CONTAINERS. EMPTY CONTAINERS RETAIN RESIDUE, DO NT

CONTAINERS SHOULD BE GROUNDED WHEN POURING. AVOID FREEFALL OF LIQUID. CLOSE CONTAINER AFTER EACH USE. DONT

WATER MAY BE INEFFECTIVE. USE WATER TO COOL HEAT EXPOSED CONTAINERS. AVOID EXPOSURE TO FUMES. USE SCBA IN ENCLOSED

TOXIC GASES EVOLVE IN BURNING. KEEP CNTNRS TIGHTLY CLSD. KEEP FROM IGNITS. CLSD CNTNRS EXPLODE IN HEAT. DONT APPLY TO

COMA, HARMFUL/FATAL. SKIN: IRRITANT. EYE: IRRITANT. PERMANT BRAIN/NS DAMAGE, LIVER ABN ORMALITIES.

Other Protective Equipment:

Supplemental Safety and Health:

Health Hazards Data

Route Of Entry Inds - Inhalation:

Carcinogenicity Inds - NTP:

Health Hazards Acute And Chronic:

Explanation Of Carcinogenicity:

Signs And Symptions Of Overexposure:

Medical Cond Aggravated By Exposure:

OUTDOORS. AVOID RUNOFF TO WATERWAYS. NOTIFY FIRE/HEALTH AGENCIES.

INCINERATE CLOSED CONTAINERS. SEAL DRUMS TIGHTLY.

Fire and Explosion Hazard Information

FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG.

Physical/Chemical Properties

**DRILL/GRIND/EXPOSE TO HEAT OR OTHER IGNITS.

PRESSURIZE/CUT/WELD/BRAISE/SOULDER/**

GOVERNMENT/INDUSTRIAL R EFERENCES.

Work Hygienic Practices:

Equipment NONE

LD50LC50Mixture:

NONE

Skin: YES

IARC: NO

OSHA:

NK 3

NONE

ASPIRATION.

Spill Release Procedures:

Waste Disposal Methods:

Handling And Storage Precautions:

Neutralizing Agent:

Other Precautions:

Flash Point Method:

SCC

NK

0.9

HCC:

NRC/State LIC No:

Boiling Point:

Melt/Freeze Pt:

M.P/F.P Text:

Decomp Temp:

Decomp Text:

Vapor Pres:

Vapor Density:

Spec Gravity:

PH: NK

Viscosity:

NK

71.0

YES

NO

VOC Pounds/Gallon:

VOC Grams/Liter:

SLOWER THAN ETHER

Solubility in Water:

Corrosion Rate:

Stability Indicator:

Materials To Avoid: OXIDIZING ATENTS

CO2 AND CO. 5

Information:N/P

Information:N/P

Appearance and Odor:

Percent Volatiles by Volume:

Reactivity Data

Stability Condition To Avoid:

Hazardous Decomposition Products:

Hazardous Polymerization Indicator:

Conditions To Avoid Polymerization:

Toxicological Information

Regulatory Information

Sara Title III Information: N/P

Federal Regulatory Information: N/P

State Regulatory Information: N/P

Other Information

www.lookchem.com

Other Information:N/P

MSDS Transport Information

TEMPS IN EXCESS OF 150F IN CLOSED CONTAINER. EXPOSURE TO ALL IGNITS INCLUDING HEAT.

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any

guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from

handling or from contact with the above product. See reverse side of invoice or packing slip for additional

WARRANTY

terms and conditions of sale.

Evaporation Rate & Reference:

Volatile Org Content %:

NK

NK

NK

B.P. Text: 133 TO 399F

Net Prop WT For Ammo:

Flash Point:

41.0F,5.0C

Lower Limits:

Upper Limits:

Extinguishing Media:

Fire Fighting Procedures:

AREAS. *W/STRONG OXIDIANTS.

Unusual Fire/Explosion Hazard:

HOT SURFACES. DONT STORE/MIX *

Flash Point Text:

Autoignition Temp:

Autoignition Temp Text:

Ingestion: