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

Click http://www.lookchem.com/cas-113/113-48-4.html for suppliers of this product.

Composition/Information on Ingredient Cas: 113-48-4

Code: F

RTECS:

Code:

RB8575000

ACGIH TLV:

ACGIHSTEL:

Ventilation:

Protective Gloves:

Eye Protection:

NONE

YES

Skin: YES

YES

NO

IARC: NO

OSHA: NO

Ingestion:

CHEMICAL RESISTANT

Other Protective Equipment:

Supplemental Safety and Health:

Health Hazards Data

ORAL LD50 (RAT) IS UNKNOWN

Carcinogenicity Inds - NTP:

Health Hazards Acute And Chronic:

Explanation Of Carcinogenicity:

Signs And Symptions Of Overexposure:

Medical Cond Aggravated By Exposure:

NOT CARCINOGENIC.

IRRITATION PERSIST.

Neutralizing Agent:

Other Precautions:

Flash Point Method:

CC

N/P

HCC: T5

N/R

NRC/State LIC No:

Boiling Point:

Melt/Freeze Pt:

M.P/F.P Text:

Decomp Temp:

Decomp Text:

Vapor Pres:

Vapor Density:

Spec Gravity:

VOC Pounds/Gallon:

VOC Grams/Liter:

Solubility in Water: VIRTUALLY INSOLUBLE

Corrosion Rate:

Stability Indicator:

Materials To Avoid:

Appearance and Odor:

Percent Volatiles by Volume:

Reactivity Data

Stability Condition To Avoid:

STRONG ACIDS AND ALKALIES.

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

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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:

YELLOW TO AMBER LIQUID, PLESANT WOODY ODOR.

0.8290

PH: N/P

Viscosity: N/P 6

N/P

N/P

N/P

YES

NONE

NONE

NONE

Information:N/P

Information:N/P

Volatile Org Content %:

B.P. Text:

N/P

N/P

N/P

N/P

N/P

Net Prop WT For Ammo:

Lower Limits: 0.6, SOLVENT

Upper Limits: 7.0, SOLVENT

Extinguishing Media:

Fire Fighting Procedures:

Unusual Fire/Explosion Hazard:

CARBON DIOXIDE, FOAM, DRY CHEMICAL, SAND.

Physical/Chemical Properties

BIRDS, AND OTHER WILDLIFE. PREVENT SPREAD OF CONTAMINATED RUN-OFF.

COMBUSTIBLE LIQUID. KEEP CONTAINERS COOL TO AVOID EXPLOSIVE IGNITION.

Flash Point: =63.3C, 146.F

Flash Point Text: FOR SOLVENT

Autoignition Temp:

Autoignition Temp Text:

N/R 4

Spill Release Procedures:

Waste Disposal Methods:

Handling And Storage Precautions:

OUT OF REACH OF CHILDREN, DOMESTIC ANIMALS & PETS.

CONTAMINATE THE ENVIRONMENT THROUGH IMPROPER DISPOSAL.

Fire and Explosion Hazard Information

NONE KNOWN.

First Aid:

Route Of Entry Inds - Inhalation:

Work Hygienic Practices:

LD50LC50Mixture:

Control Measures

NOT REQUIRED. AVOID INHALATION OF VAPORS.

FACE SHIELD, SAFETY GLASSES OR GOGGLES.

5 LOCAL EXHAUST AND MECHANICAL: AS REQUIRED TO MEET TLV.

WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING OR SMOKING.

Respiratory Protection:

Code: Μ

NΡ Code:

5000PPM/30000STEL;94

Equipment WEAR LONG PANTS, LONG SLEEVED SHIRT OR OTHER BODY COVERING. AVOID SKIN OR EYE CONTACT.

ACUTE EXPOSURE MAY LEAD TO IRRITATION OF EYES AND MUCOUS AND NERVOUS SYSTEM SYMPTOMS. CHRONIC EFFECTS: AT HIGH ORAL DOSES, THE TYPE OF SOLVENT IN THIS PRODUCT HAS CAUSED IRREVERSIBLE DAMAGE TO THE LIV ER & KIDNEY (MALE ONLY) IN

IF SWALLOWED, CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. DO NOT INDUCE VOMITING. VOMITING MAY CAUSE ASPIRATION PNEUMONIA. IF INHALED, REMOVE VICTIM TO FRESH AIR. IF ON SKIN, REMOVE CONTAMI NATED CLOTHING & WASH AFFECTED AREA WITH SOAP & WATER. IF IN EYES, FLUSH EYES WITH PLENTY OF WATER. CALL A PHYSICIAN IMMEDIATELY IF

TAKE CARE TO AVOID CONTACT WITH PESTICIDE AND WEAR PROTECTIVE EQUIPMENT TO PREVENT CONTACT WITH THE PRODUCT OR ITS VAPORS. COVER THE SPILLED AREA WITH GENEROUS AMOUNTS OF ABSORBENT MATERIAL (CLAY, DIA TOMACEOUS EARTH, SAND,

WASTE RESULTING FROM THE USE OF THIS PRODUCT MAY BE DISPOSED OF ON SITE OR AT AN APPROVED WASTE DISPOSAL FACILITY.

TRIPLE RINSE CONTAINER. THEN OFFER FOR RECYCLING OR RECONDITIONING, OR PUNCTURE AN D DISPOSE OF IN A SANITARY

DO NOT USE, POUR OR SPILL NEAR HEAT OR OPEN FLAME. EXPOSURE TO TEMPERATURES ABOVE 130F MAY CAUSE BURSTING. KEEP

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL. PERIODICALLY INSPECT STORED MATERIAL. DO NOT

DO NOT INHALE VAPOR. USE SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. THIS PRODUCT IS TOXIC TO FISH,

RATS. THESE EFFECTS ARE NOT RELEVANT TO HUMANS AT OCCUPATIONAL LEVELS OF EXPOSURE.

SAWDUST). SWEEP THE CONTAMINANT ONTO SHOVEL & PUT INTO SALVAGE DRUM.

LANDFILL, OR BY OTHER PROCEDURES APPROVED BY STATE & LOCAL AUTHORITIES.

IRRITATION OF EYES AND MUCOSA, HYPEREXCITABILITY, UNCOORDINATION, DIARRHEA, CHRONIC CONVULSIONS.

OSHA STEL: Code:

Other REC Limits: NONE RECOMMENDED **OSHA PEL:** 5000 PPM Code: Μ

Τ Name: N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE Environment