

MATERIAL SAFETY DATA SHEET

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

Click <http://www.lookchem.com/cas-111/111-84-2.html> for suppliers of this product.

Composition/Information on Ingredient

Cas:

111-84-2

Code:

M

RTECS:

RA6115000

Code:

M

Name:

N-NONANE

Other REC Limits:

NONE RECOMMENDED

OSHA PEL:

200 PPM

Code:

M

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

200 PPM; 9394

Code:

M

ACGIH STEL:

N/P

Code:

Control Measures

Respiratory Protection:

USE NIOSH/MSHA APPROVED RESPIRATORY PROTECTION IN AREAS EXCEEDING EXPOSURE LIMITS. TYPE DETERMINED BY CONTAMINANTS, DEGREE OF POTENTIAL EXPOSURE AND PUBLISHED RESPIRATORY PROTECTION FACTORS. SHOULD BE AVAILABLE FOR NONROUTINE AND EMERGENCY USE

Ventilation:

PROVIDE ADEQUATE VENTILATION THAT WILL MAINTAIN VAPOR CONCENTRATIONS TO LEVELS BELOW ALLOWABLE EXPOSURE LIMITS.

Protective Gloves:

WEAR IMPERVIOUS PROTECTIVE GLOVES.

Eye Protection:

WEAR SAFETY GLASSES OR GOGGLES.

Other Protective Equipment:

Equipment WEAR IMPERVIOUS CLOTHING AND BOOTS IF NEEDED. PROVIDE EYE WASH STATION AND SAFETY SHOWER IN WORK AREA.

Work Hygienic Practices:

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

Supplemental Safety and Health:

DO NOT WEAR CONTACT LENSES WHEN WORKING AROUND THIS PRODUCT. NEVER SIPHON BY MOUTH. FOR USE AS A MOTOR FUEL ONLY. DO NOT USE AS A CLEANING SOLVENT OR FOR OTHER NON-MOTOR FUEL USE. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL ON OR NEAR THIS CONTAINER. EMPTY CONTAINER CONTAINS RESIDUE, MAY EXPLODE IN HEAT OF FIRE.

Health Hazards Data

LD50/LC50 Mixture:

LD50 (ORAL RAT) IS UNKNOWN.

Route Of Entry Inds - Inhalation:

YES

Skin:

YES

Ingestion:

YES

Carcinogenicity Inds - NTP:

YES

IARC:

YES

OSHA:

YES

Health Hazards Acute And Chronic:

ACUTE: EYES: IRRITATION, CONJUNCTIVITIS. SKIN: IRRITATION, DEFATTING, REDNESS, INFLAMMATION, DERMATITIS, INFECTION. INJECTION UNDER SKIN IS EMERGENCY. INHALATION: RESPIRATORY TRACT IRRITATION, CNS EFFECTS, CONVULSIONS, COMA, DEATH. INGESTION: HARMFUL/FATAL IF SWALLOWED, GI DISTURBANCES. CHRONIC: REPEATED CONTACT MAY CAUSE DERMATITIS, BEHAVIORAL CHANGES.

Explanation Of Carcinogenicity:

CONTAINS B [71-43-2] WHICH IS LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CARCINOGEN.

Signs And Symptoms Of Overexposure:

EYES: IRRITATION, CONJUNCTIVITIS. SKIN: IRRITATION, DEFATTING, REDNESS, INFLAMMATION, DERMATITIS, INFECTION, SWOLLEN-DISCOLORED-EXTREMELY PAINFUL TISSUE. INHALATION: IRRITATION, CNS EFFECTS, DIZZINESS, NAUSEA, HEADACHE, CONVULSIONS, COMA, DEATH. INGESTION: GI DISTURBANCES, NAUSEA, VOMITING, DIARRHEA, CNS EFFECTS.

Medical Cond Aggravated By Exposure:

PRE-EXISTING EYE, SKIN, HEART, CENTRAL NERVOUS SYSTEM AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

First Aid:

EYES: FLUSH WITH LARGE AMOUNTS OF WATER. IF IRRITATION PERSISTS GET MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED CLOTHING. WASH AREA WITH SOAP AND WATER. IF INJECTED UNDER SKIN, GET MEDICAL ATTENTION. INHALATION: MOVE TO FRESH AIR. SUPPORT/BREATHING AS NEEDED. GET MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. GIVE VEGETABLE OIL OR CHARCOAL SLURRY TO RETARD ABSORPTION. GET MEDICAL ATTENTION.

Spill Release Procedures:

ELIMINATE ALL SOURCES OF IGNITION. CONTAIN SPILL. S LEAK, RECOVER FREE LIQUID. ABSORB LIQUID WITH APPROPRIATE ABSORBENT. PREVENT SPILL FROM ENTERING SEWERS, STORM DRAINS, OTHER DRAINAGE SYSTEMS AND NATURAL WATERWAYS. CONTACT APPROPRIATE AGENCIES.

Neutralizing Agent:

NONE SPECIFIED BY MANUFACTURER.

Waste Disposal Methods:

DISPOSE OF WASTE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. IF SPILL ENTERS INTO OR UPON NAVIGABLE WATERS, THE CONTIGUOUS ZONE, OR ADJOINING SHORELINES, CONTACT NATIONAL RESPONSE CENTER AT 800-424-8802.

Handling And Storage Precautions:

STORE IN CLOSED CONTAINERS IN COOL, DRY, ISOLATED, WELL VENTILATED AREA AWAY FROM HEAT, SOURCES OF IGNITION, INCOMPATIBLE MATERIALS.

Other Precautions:

USE NON-SPARKING TOOLS AND EXPLOSION PROOF EQUIPMENT. GROUND LINES, CONTAINERS, AND OTHER EQUIPMENT USED DURING PRODUCT TRANSFER TO REDUCE POSSIBILITY OF STATIC INDUCED SPARK. DO NOT LOAD INTO CONTAINERS WHICH CONTAINED LOW FLASH MATERIAL.

Fire and Explosion Hazard Information

Flash Point Method:

N/P

Flash Point:

125 TO 190F

Autoignition Temp:

495F

Lower Limits:

0.4

Upper Limits:

8.0

Extinguishing Media:

DRY CHEMICAL, FOAM, CARBON DIOXIDE.

Fire Fighting Procedures:

USE WATER TO COOL FIRE-EXPOSED CONTAINERS, STRUCTURES. PROTECT PERSONNEL. IF SPILL NOT IGNITED, VENTILATE AREA, DISPERSE VAPORS/PROTECT PERSONNEL WITH WATER SPRAY.

Unusual Fire Or Explosion Hazard:

CONTAINERS MAY EXPLODE IN HEAT OF FIRE. VAPORS FORM EXPLOSIVE MIXTURES WITH AIR AT ROOM TEMPERATURE. VAPORS MAY SPREAD TO DISTANT IGNITION SOURCES AND FLASH BACK.

Health Hazards Acute And Chronic:

ACUTE: EYES: IRRITATION, CONJUNCTIVITIS. SKIN: IRRITATION, DEFATTING, REDNESS, INFLAMMATION, DERMATITIS, INFECTION. INJECTION UNDER SKIN IS EMERGENCY. INHALATION: RESPIRATORY TRACT IRRITATION, CNS EFFECTS, CONVULSIONS, COMA, DEATH. INGESTION: HARMFUL/FATAL IF SWALLOWED, GI DISTURBANCES. CHRONIC: REPEATED CONTACT MAY CAUSE DERMATITIS, BEHAVIORAL CHANGES.

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Physical/Chemical Properties

HCC:

F4

NRC/State LIC No:

N/R

Net Prop WT For Ammo:

YES

Boiling Point:

125 TO 190F

Melt / Freeze Pt:

325 TO 700F

UNPK/PkD/Pk Text:

UNKNOWN

Decomp Temp:

UNKNOWN

Decomp Text:

UNKNOWN

Vapor Density:

3.7 (AIR = 1)

Volatile Org Content %:

0%

Spec Gravity:

0.84-0.93

VOC Pounds/Gallon:

YES

PH:

N/K

VOC Grams/Liter:

YES

Viscosity:

N/P

Evaporation Rate & Reference:

UNKNOWN

Solubility in Water:

NEGLIGIBLE

Appearance and Odor:

CLEAR TO STRAW YELLOW LIQUID. KEROSENE ODOR.

Percent Volatiles by Volume:

NEG

Corrosion Point:

UNKNOWN

Conditions To Avoid Polymerization:

WILL NOT OCCUR

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