

MATERIAL SAFETY DATA SHEET

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

Click <http://www.lookchem.com/cas-111/11130-12-4.html> for suppliers of this product.

Composition/Information on Ingredient

Cas:

11130-12-4

Code:

M

RTECS:

Code:

X

Name:

SODIUM BORATE PENTAHYDRATE Environmental Wt: 0t

Other REC Limits:

NONE RECOMMENDED

OSHA PEL:

0.01 MG/M3

Code:

M

OSHA STEL:

Code:

ACGIH TLV:

0.1 MG/M3; 9394

Code:

M

ACGIH STEL:

N/P

Code:

Control Measures

Respiratory Protection:

USE AN ORGANIC VAPOR RESPIRATOR FOR CONCENTRATIONS EXCEEDING THE OCCUPATIONAL EXPOSURE LIMIT. USE SUPPLIED-AIR RESPIRATORY EQUIPMENT AS REQUIRED

Ventilation:

LOCAL EXHAUST IS SUGGESTED FOR USE, WHERE POSSIBLE, IN ENCLOSED OR CONFINED SPACES

Protective Gloves:

POLYVINYL CHLORIDE GLOVES IS RECOMMENDED

Eye Protection:

4 SAFETY GLASSES WITH SIDE SHIELDS

Other Protective Equipment:

Equipment PROTECTIVE COVERALLS AND LONG SLEEVES IS RECOMMENDED. EYEWASH FOUNTAINS AND EMERGENCY SHOWERS ARE REQUIRED

Work Hygienic Practices:

USE GOOD INDUSTRIAL HYGIENE PRACTICES.

Supplemental Safety and Health:

NSN CANCELLED: 00092. PER SAMMS-CTDF USE NSN: 6850-01-441-3223.

Health Hazards Data

LD50/LC50 Mixture:

NONE GIVEN FOR MIXTURE AS A WHOLE

Route Of Entry Inds - Inhalation:

N/P

Skin:

N/P

Ingestion:

N/P

Carcinogenicity Inds - NTP:

NO

IARC:

NO

OSHA:

NO

Health Hazards Acute And Chronic:

EYES: THIS PRODUCT MAY CAUSE SEVERE EYE IRRITATION. THIS PRODUCT CAN CAUSE PROLONGED VISION IMPAIRMENT. SKIN: THIS PRODUCT MAY BE HARMFUL IF IT IS ABSORBED THROUGH THE SKIN. INGESTION: THIS PRODUCT MAY BE FATAL IF IT IS SWALLOWED. THIS PRODUCT MAY CAUSE NERVOUS SYSTEM DAMAGE IF SWALLOWED. SWALLOWING LARGE VOLUMES OF ETHYLENE GLYCOL CAN LEAD TO KIDNEY DAMAGE. INHALATION: EXPOSURE TO HIGH CONC ENTRATIONS OF VAPOR MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. EXPOSURE TO VAPOR MAY CAUSE DAMA

Explanation Of Carcinogenicity:

NONE OF THIS PRODUCT'S COMPONENTS ARE LISTED BY ACGIH, IARC, NIOSH, NTP OR OSHA.

Signs And Symptoms Of Overexposure:

EYES: TEARS, SWELLING, REDNESS. INGESTION: MAY CAUSE DIZZINESS, INCOORDINATION, HEADACHE, NAUSEA, VOMITING. CARDIAC FAILURE & PULMONARY EDEMA MAY DEVELOP AFTER INGESTION OF THIS MATERIAL. CASES OF UNCONSCIOUSNESS & NYSTAGMUS. INHALATION: EXCESSIVE INHALATION OF THIS PRODUCT MAY CAUSE HEADACHE, DIZZINESS, BLURRED VISION, NAUSEA AND VOMITING. EXPOSURE TO HIGH CONCENTRATIONS OF VAPOR MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. EXPOSURE TO VAPORS MAY CAUSE DAMAGE TO THE KIDNEYS, LIVER, LUN

Medical Cond Aggravated By Exposure:

NO DATA PROVIDED BY MANUFACTURER

First Aid:

EYE: IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. IF EYES BECOME INFLAMED, SEEK MEDICAL ADVICE. SKIN: FOR SKIN CONTACT, FLUSH WITH LARGE AMOUNTS OF WATER. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. INGESTION: IF THE MATERIAL IS SWALLOWED, GET IMMEDIATE MEDICAL ATTENTION OR ADVICE -- DO NOT INDUCE VOMITING. INHALATION: IF GAS/FUME/VAPOR/DUST /MIST FROM THE MATERIAL IS INHALED, REMOVE THE AFFECTED PERSON IMMEDIATELY TO FRESH AIR. IF THE

Spill Release Procedures:

S THE FLOW OF MATERIAL, IF THIS IS WITHOUT RISK. DIKE THE SPILLED MATERIAL, WHERE THIS IS POSSIBLE. ABSORB WITH INERT ABSORBENT SUCH AS DRY CLAY, SAND OR DIATOMACEOUS EARTH, COMMERCIAL SORBENTS, OR RECOVER USING PUMPS. SCOOP UP USED ABSORBENT INTO DRUMS. WEAR 3 APPROPRIATE PROTECTIVE EQUIPMENT AND CLOTHING DURING CLEAN-UP. THOROUGHLY WASH THE AREA AFTER A SPILL OR LEAK CLEAN-UP. ISOLATE AREA

Neutralizing Agent:

NO DATA PROVIDED BY MANUFACTURER

Waste Disposal Methods:

PRODUCT AS SHIPPED DOES NOT MEET THE DEFINITION OR CHARACTERISTICS OF A HAZARDOUS WASTE. DO NOT ALLOW THIS MATERIAL TO DRAIN INTO SEWERS/WATER SUPPLIES. ALL WASTES MUST BE HANDLED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

Handling And Storage Precautions:

HANDLING: DO NOT GET THIS MATERIAL IN YOUR EYES, ON YOUR SKIN, OR ON YOUR CLOTHING. KEEP THIS PRODUCT FROM HEAT, SPARKS, OR OPEN FLAME. USE THIS PRODUCT WITH ADEQUATE VENTILATION. DO NOT REUSE THE EMPTY CONTAINER. WASH THOROUGHLY AFTER HANDLING. STORAGE: KEEP THIS MATERIAL AWAY FROM FOOD,

Other Precautions:

PROTECT FROM SKIN AND EYE CONTACT. KEEP THIS PRODUCT AWAY FROM CHILDREN AND PETS.

Fire and Explosion Hazard Information

Flash Point Method:

TCC

Flash Point:

=115.6C, 240.F

Flash Point Text:

APPROX.

Autoignition Temp:

N/A

Autoignition Temp Text:

N/A

Lower Limits:

3.2

Upper Limits:

NONE

Extinguishing Media:

DRY CHEMICAL, FOAM, CARBON DIOXIDE, WATER FOG. USE WATER TO COOL FIRE-EXPOSED CONTAINERS AND TO PROTECT PERSONNEL. A SOLID STREAM OF WATER MAY SCATTER MOLTEN PRODUCT

Fire Fighting Procedures:

WEAR FULL SET OF PROTECTIVE EQUIPMENT, INCLUDING CHEMICAL GOGGLES AND GLOVES

IF INHALED: REMOVE FROM EXPOSURE. IF INGESTION: DO NOT INDUCE VOMITING. INHALATION: EXPOSURE TO HIGH CONCENTRATIONS OF VAPOR MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. EXPOSURE TO VAPORS MAY CAUSE DAMAGE TO THE KIDNEYS, LIVER, LUN

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Physical/Chemical Properties

HCC:

V5

NRC/State IC No:

N/R

Net Prop WT For Ammo:

N/A

Boiling Point:

N/A

B.P. Text:

NOT APPLICABLE

Melt/Freeze Pt:

N/P

M.P./F.P. Text:

NOT APPLICABLE

Decomp Temp:

N/P

Decomp Text:

N/P

Vapor Pres:

NOT APPLICABLE

N.V.

Vapor Density:

N/A

Volatile Org Content %:

N/A

Spec Gravity:

1.12 TO 1.13

VOC Pounds/Gallon:

N/A

Viscosity:

NOT APPLICABLE

Evaporation Rate & Reference:

NOT APPLICABLE

Solubility in Water:

NOT APPLICABLE

Appearance and Odor:

Liquid, Fluorescent Green, Odor: NOT AVAILABLE

Percent Volatiles by Volume:

N/P

Corrosion Rate:

N/P