

# 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: Ot

**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

**ACGIHSTEL:**  
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

**LD50LC50Mixture:**  
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 CONCENTRATIONS OF VAPOR MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. EXPOSURE TO VAPOR MAY CAUSE DAMAGE

**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, LUNG

**Medical Condition 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 INFLAMMED, 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:**  
STOP 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 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:**

**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

**Unusual Fire/Explosion Hazard:**  
SHUT OFF THE SOURCE OF FUEL, IF POSSIBLE. THIS PRODUCT MAY REACT EXPLOSIVELY WHEN MIXED WITH OXIDIZING AGENTS. A SUDDEN RELEASE OF HOT ORGANIC VAPORS/MISTS FROM THE PROCESS EQUIPMENT AT ELEVATED TEMPERATURES AND PRESSURES MAY RESULT IN IGNITIONS WITHOUT THE PRESENCE OF AN OBVIOUS IGNITION SOURCE.

## Physical/Chemical Properties

**HCC:**  
V5

**NRC/State LIC No:**  
N/R

**Net Prop WT For Ammo:**

**Boiling Point:**

**B.P. Text:**  
NOT APPLICABLE

**Melt/Freeze Pt:**

**M.P/F.P Text:**  
NOT APPLICABLE

**Decomp Temp:**

**Decomp Text:**  
N/P

**Vapor Pres:**  
NOT APPLICABLE

**Vapor Density:**  
N/A

**Volatile Org Content %:**

**Spec Gravity:**  
1.12 TO 1.13

**VOC Pounds/Gallon:**

**PH:** 10.8

**VOC Grams/Liter:**

**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

## Reactivity Data

**Stability Indicator:**  
YES

**Stability Condition To Avoid:**  
AVOID EXCESSIVE HEAT AND ALL SOURCES OF IGNITION.

**Materials To Avoid:**  
STRONG OXIDIZING AGENTS (PEROXIDES, CHLORINE, STRONG ACIDS). AVOID MIXING WITH STRONG ACID AND BASES AT ELEVATED TEMPERATURES TO AVOID EXPLOSIVE DECOMPOSITION.

**Hazardous Decomposition Products:**  
SMOKE, CARBON MONOXIDE AND CARBON DIOXIDE

**Hazardous Polymerization Indicator:**  
NO

**Conditions To Avoid Polymerization:**  
WILL NOT OCCUR

## 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

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WARRANTY

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 terms and conditions of sale.

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