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

APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATORY PROTECTION IS RECOMMENDED IF EXPOSED TO PARTICULATE MATTER, AND FOR PROTECTION AGAINST TOXIC GASEOUS IGNITION PRODUCTS, BUT SHOULD NOT BE NECESSARY

EXPLOSION-PROOF ELECTRICAL IS REQUIRED, WHERE APPLICABLE. MECHANICAL GENERAL-COVERAGE, MODERATE-

Equipment HIGH COTTON-CONTENT CLOTHING AND UNDERCLOTHING, AS WELL AS CONDUCTIVE SHOES OR LEGSTAT (S), WRISTAT(S) AND A STATIC-DISSIPATIVE COAT ARE RECOMMENDED TO AVOID STATIC ELECTRICITY BUILD-UP.

FOR HALON 1301 SEE MSDS# CKQTM. NOTE TO PHYSICIAN: SUPPORT CARE. PRODUCT IGNITION PRODUCES SMALL QUANTITIES OF BORON, ZIRCONIUM AND IRON COMPOUNDS, PLUS NITROGEN OXIDES AND POTASSIUM CHLORIDE DUST. T REATMENT BASED ON JUDGEMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

THE PRODUCT IS SEALED PREVENTING EXPOSURE TO THE HAZARDOUS INGREDIENTS INSIDE. IF PRODUCT SEAL RUPTURES EXPOSING HAZARDOUS INGREDIENTS, DISCARD PRODUCT, AVOID CONTACT. EYES: MAY CAUSE EYE IRRITATION. SKIN: MAY CAUSE IRRITATION. INHALATION: EXPOSURE TO IGNITION PRODUCTS MAY CAUSE RESPIRATORY IRRITATION. INGESTION: NOT A HAZARD IN NORMAL

OSHA, NTP & NIOSH: NIETHER PRODUCT NOR ANY COMPONENTS ARE LISTED. IARC: 3 -HUMAN LIMITED EVIDENCE (IRON OXIDE). AGCIH:

PRE-EXISTING PULMONARY DISEASES SUCH AS EMPHYSEMA, ASTHMA, ETC. MAY BE AGGRAVATED BY OVEREXPOSURE TO IGNITION

EYES: IF EXPOSED TO CONTAINER FRAGMENTATION, BANDAGE EYES AND TRANSPORT. IF EXPOSED TO IGNITION PRODUCTS, REMOVE CONTACT LENSES IMMEDIATELY, FLUSH WITH WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFT ING UPPER AND LOWER EYELIDS. SEEK MEDICAL ATTENTION IF NEEDED. SKIN: WASH OFF ANY RESIDE WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS. INHALATION: REMOVE TO FRESH AIR. IF BREATHI NG HAS SPED, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT,

IF PRODUCT SEAL RUPTURES, BARRICADE AREA, ELIMINATE IGNITION SOURCES, USE A SOFT BRISTLE BRUSH AND A CONDUCTIVE RUBBER PAN OR RUBBER SHOVEL TO CLEAN-UP SPILLS. USE CONDUCTIVE CONTAINERS AND GROUND ALL CONTAINERS WHEN

EXPLOSIVE OR RELATED DANGEROUS MATERIAL SHOULD BE DESTROYED BY OPEN BURNING/OPEN DETONATION IN AN APPROVED

INCINERATOR, OR BY ANOTHER APPROVED METHOD SUCH AS CHEMICAL TREATMENT/DESTRUCTION. CONTAMINAT ED PROPERTY MUST

HANDLING AND USE OF EXPLOSIVES AND RELATED DANGEROUS MATERIALS MUST BE LIMITED TO PERSONNEL WHO ARE SPECIFICALLY

REFER TO THE DEPARTMENT OF DEFENSE (DOD) CONTACTORS SAFETY MANUAL NUMBER DOD4145.26M, INCLUDING SOURCES LISTED WITHIN, AND ANY OTHER APPROPRIATE INFORMATION FOR DETAILED INSTRUCTIONS REGARDING PROPER HANDLING, STORAGE, USE

DO NOT ATTEMPT TO MANUALLY FIGHT FIRES. IN CASE OF FIRE, PERSONNEL SHOULD IMMEDIATELY EVACUATE THE AREA, USING AS

WARNING - EXPLOSIVE PRODUCT! PRODUCT MAY BE SENSITIVE TO SHOCK, IMPACT, FRICTION, ELECTROSTATIC DISCHARGE, HIGH PRESSURE OR HIGH TEMPERATURE. MUST NOT BE CONFINED IF BURNING, PRODUCT MAY DEFLAGRATE OR DETONATE IF EXPOSED

TRANSFERRING THE SPILLED MATERIAL. LARGE SPILL: SOIL SPILL: REMOVE ALL CONTAMINATED SOIL TO DISPOSE OF AS HAZARDOUS

FLOW IS RECOMMENDED FOR PARTICULATE & IGNITION PRODUCT REMOVAL.

IMPERVIOUS, STATIC-DISSIPATIVE GLOVES ARE RECOMMENDED

INDUSTRIAL SAFETY GLASSES OR GOGGLES

EYE WASHING CAPABILITY IS REQUIRED.

Click http://www.lookchem.com/cas-121/121-82-4.html for suppliers of this product.

Composition/Information on Ingredient Cas:

121-82-4

Code: Т RTECS: XY9450000 Code: Τ

Other REC Limits:

OSHA PEL: 0.1 @ 68F

OSHA STEL:

ACGIH TLV:

ACGIHSTEL:

Ventilation:

Protective Gloves:

Eye Protection:

NOT ESTABLISHED

Control Measures

WITH NOR MAL HANDLING.

Other Protective Equipment:

Work Hygienic Practices:

LD50LC50Mixture:

N/P

Skin: N/P

N/P

IARC: NO

OSHA:

PRODUCTS.

ADMINISTER OXYGEN. SEE

Spill Release Procedures:

Neutralizing Agent:

Other Precautions:

Flash Point Method:

N/A

RDX

HCC:

NRC/State LIC No:

Boiling Point:

Melt/Freeze Pt:

M.P/F.P Text:

B.P. Text:

N/A

N/A

Net Prop WT For Ammo:

Lower Limits: SELF-OXIDIZI

Upper Limits: SELF-OXIDIZI

Extinguishing Media:

Fire Fighting Procedures:

Unusual Fire/Explosion Hazard:

Physical/Chemical Properties

Flash Point:

Flash Point Text:

Autoignition Temp: >204.4C, 400.F

Autoignition Temp Text:

Waste Disposal Methods:

NONE SPECIFIED BY MANUFACTURER.

Handling And Storage Precautions:

First Aid:

Ingestion:

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:

INDUSTRIAL USE. SOME INREDIENTS ARE HIGHLY POISONOUS BY INGES TION.

WASTE. WATER SPILL: FLUSH WITH COPIOUS AMOUNTS OF WATER. COLLECT WA

AUTHORIZED AND TRAINED IN THIS AREA. REFER TO DOD SAFETY MANUAL DOD4145.26M.

PERMANENTLY-INSTALLED, AUTOMATIC WATER SPRINKLER / DELUGE SYSTEM IS RECOMMENDED.

MUCH PROTECTIVE COVER AS POSSIBLE AND ACTIVATE DELUGE AND ALARM SYSTEMS. 4

RELEASING TOXIC FUMES, HEAT, SHOCK WAVES AND CONTAINER FRAGMENTS.

A4 - INADEQUATE EVIDENCE (IRON OXIDE, CYCLONITE) 3

EYE IRRITATION, SKIN IRRITATION, RESPIRATORY IRRITATION.

NOT BE BURNED. RCRA HAZ WASTW CODE: D003 (REACTIVE)

AND DISPOSAL OF EXPLOSIVES AND RELATED DANGEROUS MATERIAL.

Fire and Explosion Hazard Information

Respiratory Protection:

Code:

Code:

Code:

Code:

Μ

Μ

NONE RECOMMENDED

Name: CYCLONITE (RDX) Environmental Wt: Other REC Lim

Decomp Temp: >204.4C, 400.F **Decomp Text:** RDX **Vapor Pres:** N/A, SEALED PRODUCT **Vapor Density:** N/A

Volatile Org Content %: Spec Gravity: VOC Pounds/Gallon: PH: NOT DETERMINED **VOC Grams/Liter:**

Viscosity: N/A **Evaporation Rate & Reference:** N/A, SEALED PRODUCT Solubility in Water: **NEGLIGIBLE 5 Appearance and Odor:**

SOLID, METALLIC ORDNANCE HARDWARE; ODORLESS **Percent Volatiles by Volume:** N/P **Corrosion Rate:**

Reactivity Data **Stability Indicator:** YES

Stability Condition To Avoid: SHOCK, IMPACT, FRICTION, ELECTROSTATIC DISCHARGE, HIGH PRESSURE, HIGH TEMPERATURE, OPEN FLAME AND CHEMICAL OR PHYSICAL CONTAMINATION. **Materials To Avoid:** THE PRODUCT IS SEALED PREVENTING EXPOSURE TO THE HAZARDOUS INGREDIENTS INSIDE. IF THE SEAL RUPTURES, REMOVE ALL OTHER HAZARDOUS MATERIALS.

EXTREME HEAT AND TOXIC GASES CONTAINING BORON, ZIRCONIUM AND IRON COMPOUNDS, PLUS NITROGEN OXIDES AND POTASSIUM

Hazardous Decomposition Products: CHLORIDE DUST MAY BE EMITTED DURING IGNTION. **Hazardous Polymerization Indicator:** NO

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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.

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

WILL NOT OCCUR.

Information:N/P

Information:N/P