

ENSIGN-BICKFORD COMPANY -- HMX;OCTOGEN;SUPERFINE BETA HMX -- 1376-00-908-4218

=====
Product Identification
=====

Product ID:HMX;OCTOGEN;SUPERFINE BETA HMX

MSDS Date:03/21/1991

FSC:1376

NIIN:00-908-4218

MSDS Number: BNQCH

=== Responsible Party ===

Company Name:ENSIGN-BICKFORD COMPANY

Address:660 HOPMEADOW STREET

City:SIMSBURY

State:CT

ZIP:06070

Country:US

Info Phone Num:203-658-4411 OR 203-843-227

6

Emergency Phone Num:203-658-4411 OR 203-843-2276

Preparer's Name:TA SHREVE

CAGE:96336

=== Contractor Identification ===

Company Name:ENSIGN-BICKFORD CO

Address:660 HOPMEADOW STREET

Box:483

City:SIMSBURY

State:CT

ZIP:06070-0483

Country:US

Phone:1-801-798-8613

CAGE:96336

=====
Composition/Information on Ingredients
=====

Ingred Name:CYCLOTETRAMETHYLENETETRANITRAMINE

CAS:2691-41-0

RTECS #:XF7450000

Fraction by Wt: 100%

Other REC Limits:NOT KNOWN

OSHA PEL:NOT KNOWN

ACGIH TLV:NO

T KNOWN

=====
===== Hazards Identification =====

LD50 LC50 Mixture:LD50 MOUSE ORAL 1500 MG/KG.
Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:PROLONGED OR REPEATED EXPOSURE MAY
CAUSE ECZEMA.EXCESSIVE INHALATION MAY RESULT IN CARDIOVASCULAR
COLLAPSE.OVEREXPOSURE BY INGESTION WILL RESULT IN DEATH.
Explanation of Carcinogenicity:NONE
Effects of Overexposure:EYES:MAY CAUSE IRRITATION,POSSIBLE CORNEAL
INJURY. SKIN:PROLONGED OR REPEATED EXPOSURE MAY CAUSE IRRITATION.
INGESTION:MAY CAUSE GASTROINTESTINAL IRRITATION. INHALATION:MAY
CAUSE NASAL AND RESPIRATORY IRRITATION.
Medical Cond Aggravated by Exposure:NOT KNOWN

=====
===== First Aid Measures =====

First Aid:EYES:FLUSH IMMEDIATELY W/ RUNNING WATER FOR AT LEAST 15
MINUTES.IF REDNESS OR IRRITATION OCCURS,GET MEDICAL ATTN. SKIN:WASH
THOROUGHLY W/ SOAP & WATER FOR AT LEAST 15 MINUTES.IF IRRITATION
OCCURS,GET MEDICAL ATTN. INGESTION:INDUCE VOMITING IMMEDIATELY BY
STICKING FINGER DOWN VICTIM'S THROAT.GET IMMEDIATE MEDICAL ATTN.
INHALATION:GET TO FRESH AIR.GIVE ARTIFICIAL RESPIRATION IF
BREATHING STOPPED.

=====
===== Fire Fighting Measures =====

Flash Point:NOT KNOWN
Autoignition Temp:Autoignition Temp Text:ADDDATA
Lower Limits:NOT KNOWN
Upper Limits:NOT KNOWN
Extinguishing Media:NONE
Fire Fighting Procedures
:DO NOT FIGHT FIRES INVOLVING HMX.HIGHLY
EXPLOSIVE AND MAY DETONATE WHEN EXPOSED TO HEAT OR FLAMES.ISOLATE
AREA AND EVACUATE ALL PERSONNEL TO DISTANT,SAFE AREA.
Unusual Fire/Explosion Hazard:HIGHLY EXPLOSIVE.EXPOSURE TO
SHOCK,HEAT,IMPACT,SPARKS,FRICION MAY DETONATE.BURNS VIGOROUSLY IN
FIRE.EXPLOSIVE TEMPERATURE:621F,327C.

=====
===== Accidental Release Measures =====

Spill Release Procedures:ISOLATE AREA.ELIM ALL IGNIT SOURCES.EVAC ALL
NON-ESSENTIAL PERSONNEL

ERS TO SAFE, DISTANT AREA. REMOVE ALL EXPLOSIVES NOT INVOLVED IN SPILL FROM AREA. CAREFULLY COLLECT SPILL, AVOIDING EXCESS FRICTION/IMPACT. PLACE IN PLASTIC BAG. CONTAM W/ DIRT, ETC (SEE SUPP)
Neutralizing Agent: NOT KNOWN

=====
===== Handling and Storage =====

Handling and Storage Precautions: HANDLE AND STORE IAW ALL APPLICABLE REGULATIONS AND INDUSTRY PRACTICES PERTAINING TO CLASS A EXPLOSIVES. HMX SHOULD BE HANDLED WET WHENEVER POSSIBLE.

Other Precautions

: EXPOSURE TO SHOCK, HEAT, SPARKS, PRESSURE OR IMPACT MAY RESULT IN DETONATION. HANDLING ONLY BY INDIVIDUALS FAMILIAR WITH PROPER EXPLOSIVE HANDLING PROCEDURES. AVOID DUSTING BY KEEPING THE HMX WET WHEN POSSIBLE.

=====
===== Exposure Controls/Personal Protection =====

Respiratory Protection: NIOSH APPROVED DUST RESPIRATOR SHOULD BE WORN WHEN HANDLING HMX.

Ventilation: LOCAL EXHAUST RECOMMENDED TO MINIMIZE EMPLOYEE EXPOSURE.

Protective Gloves: BUTYL RUBBER

Eye Protection: CHEMICAL SAFETY GOGGLES.

Other Protective Equipment: COTTON OR ANTI-STATIC COVERALLS WHICH WILL PROTECT AGAINST POWDER SPLASHES.

Work Hygienic Practices: REPLACE COVERALLS WHEN CONTAMINATED.

Supplemental Safety and Health

BOILING POINT: HMX DEFLAGRATES AT 549F, 287C. SPILL PROC: RENDERS IT MORE SENSITIVE TO DETONATION. IF POSSIBLE, SEPARATE UNCONTAMINATED MATERIAL FROM CONTAMINATED MATERIAL. STORE COLLECTED MATERIAL FOR PROPER DISPOSAL.

=====
===== Physical/Chemical Properties =====

Boiling Pt: B.P. Text: SEE SUPP

Melt/Freeze Pt: M.P/F.P Text: 527F, 275C

Decomp Temp: Decomp Text: NOT KNOWN

Spec Gravity: BETA 1.96, H*2=1

Solubility in Water: NEGLIGIBLE

Appearance and Odor: COLORLESS, ODORLESS CRYSTALS.

Percent Volatiles by Volume: 100

=====
===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid: YES

STRONG ACIDS, OXIDANTS AND ALKALIES. REACTS VIGOROUSLY WITH REDUCING AGENTS.

Stability Condition to Avoid: EXPOSURE TO SHOCK, H

EAT, SPARKS, PRESSURE OR
IMPACT MAY RESULT IN DETONATION.

Hazardous Decomposition Products: HAZARDOUS GASES (NITROGEN OXIDES) MAY
BE RELEASED WHEN HMX BURNS OR DETONATES.

Conditions to Avoid Polymerization: WILL NOT OCCUR

===== Disposal Considerations =====

Waste Disposal Methods: DISP MUST BE IAW FED, STATE, & LOC
REGS. COORDINATION W/ SUPPORTING INSTALLATION/MACOM ENVIRONMENTAL
COORDINATION PRIOR TO DISP IS REC TO DETERM APPROPRIATE DISP METH
.REC
METHOD OF DISPOSAL OF WASTE EXPLOSIVES IS OPEN BURNING OR
OPEN DETONATION.

Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Department
of Defense. The United States of America in no manner whatsoever,
expressly or implied, warrants this information to be accurate and
disclaims all liability for its use. Any person utilizing this
document should seek competent professional advice to verify and
assume re
sponsibility for the suitability of this information to their
particular situation.