

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

Product ID:D-5330NS

MSDS Date:07/22/1998

FSC:9150

NIIN:00-163-9036

Status Code:A

MSDS Number: CLJPW

=== Responsible Party ===

Company Name:ZIP-CHEM PRODUCTS/ MITANN INC DBA ZIP-CHEM PRODUCTS

Address:400 JARVIS DR

City:MORGAN HILL

State:CA

ZIP:95037

Country:US

Info Phone Num:408-782-2500

Emergency Phone Num:(800) 424-9300

Chemtrec Ind/Phone:(80

0)424-9300

CAGE:1KQX9

=== Contractor Identification ===

Company Name:ZIP-CHEM PRODUCTS/ MITANN INC DBA ZIP-CHEM PRODUCTS

Address:400 JARVIS DR

Box:City:MORGAN HILL

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ZIP:95037

Country:US

Phone:408-782-2500

Contract Num:SP0450-01-M-LM79

CAGE:1KQX9

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

Ingred Name:MOLYBDENUM DISULFIDE

CAS:1317-33-5

RTECS #:QA4697000

< Wt:5.

OSHA PEL:15 MG/M3

ACGIH TLV:10 MG/M3

Ingred Name:1,1-DIFLUOROETHANE

CAS:75-37-6

RTECS #:KI1410000

Minumum % Wt:25.
Maxumum % Wt:30.
Other REC Limits:FLAMMABLE GAS
ACGIH TLV:1000 PPM

Ingred Name:DIMETHYL ETHER
CAS:115-10-6
RTECS #:PM4780000
Minumum % Wt:50.
Maxumum % Wt:55.
Other REC Limits:1000 PPM FLAMMABLE

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

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:ACUTE: BREATHING HIGH CONCENTRATIONS OF VAPORS MAY CAUSE TEMPORARY NERVOUS SYSTEM DEPRESSION WITH ANESTHETIC EFFECTS SUCH AS DIZZINESS, HEADACHE, OR NAUSEA. CHRONIC: PROLONGED EXPOSURE TO EXTREMELY HIGH CONCENTRATIONS OF THE VAPORS MAY LEAD TO NARCOSIS, CARDIAC IRREGULARITIES, UNCONSCIOUSNESS OR DEATH.
Effects of Overexposure:INHALATION-ACUTE: NAUSEA, DIZZINESS,&OR HEART IRREGULARITIES MAY OCCUR FROM BREATHING HIGH CONCENTRATIONS. CHRONIC: BREATHING EXTREMELY HIGH CONCENTRATIONS OF THE VAPORS MAY LEAD TO ANESTHETIC EFFECTS SUCH AS DIZZINESS, HEADACHE, OR NAUSEA. PROLONGED EXPOSURE TO EXTREMELY HIGH CONCENTRATIONS OF VAPORS MAY LEAD TO NARCOSIS, CARDIAC IRREGULARITIES, UNCONSCIOUSNESS OR DEATH. SKIN-ACUTE: MAY CAUSE IRRITATION OR BURNING SENSATION AS WELL AS FROSTBITE. CHRONIC: MAY CAUSE DERMATITIS. EYE: MAY CAUSE IRRITATION. INGESTION-ACUTE: MAY CAUSE NAUSEA OR VOMITING.
Medical Cond Aggravated by Exposure:NONE KNOWN.

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

First Aid:DO NOT USE EPINEPHRINE IN CONJUNCTION WITH THIS MATERIAL.
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YES: FLUSH IMMEDIATELY WITH WATER FOR 15 MINUTES AND TAKE TO PHYSICIAN. SKIN: WASH AFFECTED AREA, TREAT FOR FROSTBITE IF NECESSARY, AND CONSULT A PHYSICIAN IF IRRITATION PERSISTS. INGESTION: CALL A PHYSICIAN AND/OR TRANSPORT TO EMERGENCY FACILITY IMMEDIATELY. DO NOT INDUCE VOMITING SO AS TO AVOID ASPIRATION OF MATERIAL INTO THE LUNGS. INHALATION: REMOVE FROM EXPOSURE AND RESTORE BREATHING. SEEK MEDICAL ATTENTION.

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

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Flash Point:NOT DETERMINED

Lower Limits:1.1%

Upper Limits:19.0%

Extinguishing Media:FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG.

Fire Fighting Procedures:USE STANDARD FIREFIGHTING TECHNIQUES TO FIGHT FIRES INVOLVING THIS MATERIAL.

Unusual Fire/Explosion Hazard:HAZARDOUS COMBUSTION PRODUCTS:

HYDROCHLORIC AND HYDROFLUORIC ACIDS, CARBON MONOXIDE AND CARBON DIOXIDE, POSSIBLY CARBONYL HALIDES AT HIGH TEMPERATURES.

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

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Spill Release Procedures:FOR ALL TRANSPORTATION ACCIDENTS CALL CHEMTREC AT 1-800-424-9300. REPORTABLE QUANTITY: N/A. STOP SOURCE OF SPILL AS SOON AS POSSIBLE & NOTIFY APPROPRIATE PERSONNEL. BURN AROUND SPILL AREA TO PREVENT SPILL FROM SPREADING. VENTILATE AREA. DO NOT FLUSH INTO SEWERS. VAPORS MAY BE SUPPRESSED BY USE OF WATER FOG OR SPRAY. CONTAIN ALL LIQUID FOR TREATMENT OR NEUTRALIZATION. CONTAIN FOR TREATMENT.

===== Handling and Storage

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Handling and Storage Precautions:DO NOT TAKE INTERNALLY. AVOID CONTACT WITH EYES AND CLOTHING. UPON CONTACT WITH SKIN OR EYES WASH OFF WITH WATER. STORE IN A COOL, DRY, WELL-VENTILATED PLACE. STORE AT TEMPERATURES BELOW 120F. DO NOT STORE OR USE NEAR HEAT, SPARKS, OR FLAMES.

Other Precautions:AVOID BREATHING VAPORS. VAPORS ARE HEAVIER THAN AIR AND WILL COLLECT IN LOW AREAS AND OTHER CONFINED AREAS. SHELF LIFE LIMITATIONS: 36 MONTHS FROM DATE OF SHIPMENT.

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

Respiratory Protection:USE A DUST RESPIRATOR WHEN WORKING WITH THE ATOMIZED PRODUCT. BREATHING APPARATUS RECOMMENDED IF NECESSARY FOR APPLICATION. REFER TO NIOSH PUBLICATION NO. 89-105 AND NIOSH NO. 87-116. SEE OSHA REQUIREMENT UNDER 29 CFR 1910.1025 AND 29 CFR 1910.134.

Ventilation:LOCAL OR MECHANICAL TO KEEP INGREDIENTS BELOW THEIR EXPOSURE LIMITS.

Protective Gloves:IMPERVIOUS GLOVES ARE RECOM

RECOMMENDED TO PREVENT SKIN
CONTACT.

Eye Protection:SAFETY GLASSES TO PREVENT EYE CONTACT ARE RECOMMENDED.

Other Protective Equipment:BOOTS, APRON, PROTECTIVE SUIT.

Supplemental Safety and Health

PRODUCT CODE: 002059

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

HCC:V3

Boiling Pt:B.P. Text:NOT DETERMINED

Melt/Freeze Pt:M.P/F.P Text:NOT DETERMINED

Decomp Temp:Decomp Text:NOT DETERMINED

Vapor Pres:NOT DETERMINED

Vapor Density:>AIR

Spec Gravity:0.8

Evaporation Rate & Ref

erence:FASTER THAN ETHER

Solubility in Water:NEGLIGIBLE

Appearance and Odor:BLACK LIQUID; STRONG ODOR

Percent Volatiles by Volume:85%

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

CONCENTRATED NITRIC AND SULFURIC ACIDS, STRONG OXIDIZERS, HALOGENS AND
HALOGEN COMPOUNDS.

Stability Condition to Avoid:TEMPERATURES ABOVE 120F (49C)

Hazardous Decomposition Products:HYDROCHLORIC AND HYDROFLUORIC ACIDS,
CARBON MONOXIDE AND CARBON DIOXIDE, POSSIBLY CARBONYL HALIDES AT

HIGH TEMPERATURES.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Toxicological Information =====

Toxicological Information:SEE HEALTH HAZARDS.

===== Ecological Information =====

Ecological:AQUATIC TOXICITY: NONE KNOWN OR REPORTED.

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

Waste Disposal Methods:SPILLED MATERIAL COLLECTED IN ABSORBENT MATERIAL
SHOULD BE TRANSFERRED TO STEEL DISPOSAL OR RE

COVERY DRUMS. IF THIS
PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE AS DEFINED UNDER 40 CFR 261(D). DISPOSE OF IN
ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS.

===== MSDS Transport Information =====

Transport Information:DOT PSN: CONSUMER COMMODITY, ORM-D

===== Regulatory Information =====

SARA Title III Information:CERCLA SECTION 103 (40CFR302.4): N SARA
SECTION 302/304: NO

EHS LISTED. SARA HAZARD CATEGORIES, SARA
SECTIONS 311/312 (40CFR370.21): CLASSIFIED AS A HEALTH & PHYSICAL
HAZARD. SEC 313: THIS MATERIAL DOES NOT CONTAIN CHEMICALS SUBJECT
TO THE REPORTING REQUIREMENTS OF SEC 313 & 40CFR 372. AND CERCLA
(40CFR 302).

Federal Regulatory Information:TSCA INVENTORY STATUS: THE INGREDIENTS
OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. AND MITI (JAPAN).
EINECS AND DSL INVENTORIES.

State Regulatory Information:CALIFORNIA PROPOSITION 6

5 - THIS

PRODUCT NOT KNOWN TO CONTAINS CHEMICALS KNOWN TO THE STATE OF
CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS AND OTHER REPRODUCTIVE
HARM. MASSACHUSETTS AND PENNSYLVANIA RIGHT TO KNOW HAZARDOUS
SUBSTANCE LIST: MOLYBDENUM DISULFIDE, 1,1-DIFLUOROETHANE AND
DIMETHYL ETHER.

===== Other Information =====

Disclaimer (provided with this information by the compiling agencies):

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