

ALLIED-SIGNAL INC,ENGINEERED MATERIALS SECTOR -- GENETRON 502 AZEOTROPE --
6830-00-144-9952

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

Product ID:GENETRON 502 AZEOTROPE

MSDS Date:05/01/1989

FSC:6830

NIIN:00-144-9952

MSDS Number: BBGZP

=== Responsible Party ===

Company Name:ALLIED-SIGNAL INC,ENGINEERED MATERIALS SECTOR

Box:1139R

City:MORRISTOWN

State:NJ

ZIP:07962-1139

Country:US

Info Phone Num:201 455-415

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Emergency Phone Num:201 455-2000

Preparer's Name:NONE

CAGE:0B7T5

=== Contractor Identification ===

Company Name:HONEYWELL INTL INC

Address:101 COLUMBIA RD

Box:City:MORRISTOWN

State:NJ

ZIP:07960

Country:US

Phone:201-455-2000/800-707-4555

CAGE:0B7T5

Company Name:HONEYWELL INTL INC ENVIRONMENTAL SYSTEMS AND SERVICES

Address:101 COLUMBIA RD

Box:City:MORRISTOWN

State:NJ

ZIP:07962

Country:US

Phone:973-455-3922

CAGE:70308

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

Ingred N

ame:CHLOROPENTAFLUOROETHANE (SARA III)

CAS:76-15-3

RTECS #:KH7877500

Fraction by Wt: 51.2%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:1000 PPM

ACGIH TLV:1000 PPM; 9394

Ozone Depleting Chemical:1

Ingred Name:CHLORODIFLUOROMETHANE

CAS:75-45-6

RTECS #:PA6390000

Fraction by Wt: 48.8%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:1000 PPM

ACGIH TLV:1000 PPM; 9394

Ozone Depleting Chemical:2

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

LD50 LC50 Mixture:ORAL LD50 (RAT) IS UNKNOW

N.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE: EYES: IRRITATION, FROSTBITE.

SKIN: IRRITATION, DEFATTING, FROSTBITE. INHALATION: ASPHYXIATION AT HIGH CONCENTRATIONS, NARCOSIS, HEART PALPITATIONS OR ARRHYTHMIAS AT VERY HIGH CONCENTRATIONS. IN GESTION: NOT PERTINENT, SINCE MATERIAL IS GASEOUS AT AMBIENT CONDITIONS. CHRONIC: NONE KNOWN.

Explanation of Carcinogenicity:NONE

Effects

of Overexposure:EYES: IRRITATION, FROSTBITE. SKIN: IRRITATION,

DEFATTING, FROSTBITE, LOSS OF SENSATION, SWELLING. INHALATION:

ASPHYXIATION, NARCOSIS, HEART PALPITATIONS, ARRHYTHMIAS. INGESTION: NOT PERTINANT.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:EYES/SKIN: BATHE ANY FROSTBITE (DO NOT RUB) WITH LUKEWARM

(NOT HOT) WATER. IN ABSENCE OF WATER, COVER WITH SOFT WOOL OR OTHER

SUITABLE MATERIAL. IF NO FROSTBITE, FLUSH AREAS WITH LARGE AMOUNTS OF WATER. REMOVE ANY CLOTHING CONTAMINATED WITH LIQUID. GET MEDICAL ATTENTION. INHALATION: MOVE TO FRESH AIR. IF NOT BREATHING GIVE CPR. GIVE OXYGEN AS NECESSARY. GET MEDICAL ATTENTION. DO NOT GIVE EPINEPHRINE.

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

Flash Point:NON-FLAMMABLE

Extinguishing Media:ANY STANDARD AGENT. CHOOSE THE ONE MOST SUITABLE FOR SURROUNDING FIRE (THIS MATERIAL ITSELF IS NOT FLAMMABLE).

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND FULL FACE-PIECE SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY. CONTAIN RUNOFF.

Unusual Fire/Explosion Hazard:CONTAINERS MAY RUPTURE IN FIRE DUE TO PRESSURE. CONTACT WITH CERTAIN METALS AND OXIDIZING MATERIALS MAY PRODUCE EXOTHERMIC REACTIONS OR EXPLOSIVE COMBINATIONS.

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

Spill Release

Procedures:USING A SELF-CONTAINED AIR SUPPLY AND PROTECTION AGAINST FROSTBITE, ATTEMPT TO CLOSE VALVES OR REPAIR SOURCE OF LEAK, REMOVE OPEN FLAMES AND PROVIDE ADEQUATE VENTILATION. RELEASE TO ENVIRONMENT MAY BE SUBJECT TO FEDERAL/STATE REPORTING REQUIREMENTS.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:STORE IN COOL, WELL-VENTILATED AREA AWAY FROM HEAT, FLAME, COMBUSTIBLES. PROTECT CYLINDER/FITTINGS FROM DAMAGE. AVOID CONTACT WITH EYES,SKIN,CLOTHING.

Other Precautions:STORAGE IN SUBSURFACE LOCATIONS SHOULD BE AVOIDED. KEEP VALVE TIGHTLY CLOSED AFTER USE AND WHEN EMPTY. DO NOT PUNCTURE OR DROP CYLINDER OR EXPOSE THEM TO OPEN FLAME OR EXCESSIVE HEAT. USE AUTHORIZED CONTAINERS ONLY. DO NOT BREATHE GAS.

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

Respiratory Protection:NONE GENERALLY REQUIRED FOR ADEQUATELY VENTED

WORK SITUATIONS. FOR SITUATIONS WHERE CONCENTRATIONS EXCEED 1000 PPM, USE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS OR SUPPLIED-AIR RESPIRATOR. AT HIGH CONCENTRATIONS,ADD FULL FACEPIECE.

Ventilation:PROVIDE LOCAL EXHAUST AT FILLING ZONES AND WHERE LEAKAGE IS PROBABLE.MECHANICAL(GENERAL) MAY BE ADEQUATE FOR OTHER AREAS

Protective Gloves:PROTECTIVE WITH IMPERVIOUS OUTER LAYER.

Eye Protection:SAFETY GLASSES FOR NORMAL CONDITIONS.

Other Protective Equipment:PROTECTIVE CLOTHING WITH IMPERVIOUS OUTER

LAYER AND THERMAL INSULATION UNDERNEATH TO PREVENT FROSTBITE.

Work Hygienic Practices:WASH AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

DO NOT VENT TO ATMOSPHERE, ANY RESIDUAL MUST BE RECOVERED.CONTAINS GENETRON 22 AND 115 WHICH HARM THE ENVIRONMENT BY DESTROYING OZONE IN UPPER ATMOSPHERE. DESTRUCTION OF OZONE LAYER CAN LEAD TO INCREASED ULTRAVIOLET RADIATION WHICH

H, WITH EXCESS EXPOSURE TO

SUNLIGHT,CAN LEAD TO INCREASE IN SKIN CANCER AND EYE CATARACTS.

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

HCC:G3

Boiling Pt:B.P. Text:-50F,-45C

Vapor Pres:137.6 PSIG

Vapor Density:3.93

Spec Gravity:1.258

pH:7

Solubility in Water:SLIGHT

Appearance and Odor:COLORLESS LIQUIDIFIED GAS. FAINT ETHEREAL ODOR AT HIGHER CONCENTRATIONS..

Percent Volatiles by Volume:100

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

Stability

Indicator/Materials to Avoid:YES

STRONG OXIDANTS, HALOGENS, HOT REACTIVE METALS (MOLTEN ALUMINUM, BARIUM SHAVINGS, LITHIUM), ALKALINE EARTH METALS.

Stability Condition to Avoid:FIRES, HOT SURFACES, LIGHTED CIGARETTES, WELDING. HIGH TEMPERATURES CAUSE DECOMPOSITION, YIELDING TOXIC GASES.

Hazardous Decomposition Products:HALOGENS, HALOGEN ACIDS, CARBONYL HALIDES, SUCH AS PHOSGENE, CARBON MONOXIDE, CARBON DIOXIDE.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Waste Disposal Methods: DISPOSAL OF GENETRON 502 MAY BE SUBJECT TO FEDERAL, STATE AND LOCAL REGULATIONS. USERS OF THIS PRODUCT SHOULD REVIEW THEIR OPERATIONS IN TERMS OF APPLICABLE FEDERAL, STATE, LOCAL LAWS AND REGULATIONS, THEN CONSULT WITH APPROPRIATE REGULATORY AGENCIES.

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