

PENRAY COMPANY -- NALCOOL 2000 COOLING SYSTEM TREATMENT -- 6850-01-085-4719

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

Product ID:NALCOOL 2000 COOLING SYSTEM TREATMENT

MSDS Date:07/08/1992

FSC:6850

NIIN:01-085-4719

MSDS Number: BQNGG

=== Responsible Party ===

Company Name:PENRAY COMPANY

Address:440 DENNISTON COURT

City:WHEELING

State:IL

ZIP:60090

Country:US

Info Phone Num:708-459-5000

Emergency Phone N

um:800-942-5969

Preparer's Name:P.A. ZOUBECK

CAGE:FO778

=== Contractor Identification ===

Company Name:PENRAY COMPANY

Address:440 DENNISTON COURT

City:WHEELING

State:IL

ZIP:60090

Phone:(312) 459-5000

CAGE:FO778

Company Name:PENRAY COMPANY INC

Address:440 DENNISTON CT

Box:City:WHEELING

State:IL

ZIP:60090

Country:US

Phone:847-459-5000/ 800-752-7869

CAGE:0WT79

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

Ingred Name:SODIUM NITRITE (SARA III)

CAS:7632-00-0

RTECS #:RA1225000

Fraction by Wt: 5%
Other REC Limits:NONE SPECIFIED BY M.
EPA Rpt Qty:100 LBS
DOT Rpt Qty:100 LBS

Ingred Name:SODIUM MERCAPTOBENZOTHIAZOLE
CAS:2492-26-4
RTECS #:DL6825000
Fraction by Wt: 5%
Other REC Limits:NONE SPECIFIED BY M.

Ingred Name:SODIUM TETRABORATE, ANHYDROUS
CAS:1330-43-4
RTECS #:VZ2240000
Fraction by Wt: 5%
Other REC Limits:NONE SPECIFIED BY M.
OSHA PEL:10 MG/M3
ACGIH TLV:1 MG/M3; 9293

Ingred Name:SODIUM NITRATE
CAS:7631-99-4
RTECS #:WC5600000
Fraction by Wt: 5%
Other REC Limits:NONE SPECIFIED BY M.

Ingred Name:SODIUM SILICATE
CAS:1344-09-8
Fraction by Wt: 5%
Other REC Limits:NONE SPECIFIED BY M.

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:ACUTE- MAY CAUSE IRRITATION OF EYES,
SKIN, RESPIRATORY AND GI. TRACT. INGESTION MAY CAUSE KIDNEY DAMAGE
OR CAN BE FATAL. SODIUM NITRITE HAS CAUSED REPRODUCTIV
E DEFECTS IN
ANIMALS. CHRONIC: MAY DAMAGE LIVER, KIDNEY AND CENTRAL NERVOUS
SYSTEM.
Effects of Overexposure:EYES AND SKIN: IRRITATION, TEARING, REDNESS.
INGESTION:NAUSE, CRAMPS, VOMITING.
Medical Cond Aggravated by Exposure:PREGNANT WOMEN SHOULD AVOID
EXPOSURE TO SODIUM NITRITE.

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

First Aid:INHALATION:REMOVE TO FRESH AIR, PROVIDE CPR/OXYGEN IF NEEDED.
EYE CONTACT:FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL

HELP. SKIN

CONTACT:WASH WITH SOAP AND WATER. GET MED ATTENTION IF SYMPTOMS PERSIS T. INGESTION:INDUCE VOMITING, DRINK 1-2GLASSES OF WATER. GET MEDICAL HELP IMMEDIATELY.

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

Flash Point:NONE

Extinguishing Media:EXTINGUISH WITH AGENT SUITABLE FOR SURROUNDING FIRE

Fire Fighting Procedures:FIRE FIGHTERS SHOULD WEAR PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING APPARATUS. WATER SPRAY MAY BE USED TO COOL CONTAIN

ERS PREVENTING PRESSURE BUILDUP.

Unusual Fire/Explosion Hazard:MAY EVOLVE TOXIC OXIDES OF NITROGEN UNDER FIRE.

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

Spill Release Procedures:WEAR PROTECTIVE EQUIP. CONTAIN AND COLLECT WITH INERT ABSRBNT MATERIAL SUCH AS CLAY OR SOIL AND PLACE INTO RECOVERY DRUMS FOR DISPOSAL.

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

Handling and Storage Precautions:STORE IN COOL, DRY, WELL VENTILATED AREA.

PROTECT FROM PHYSICAL DAMAGE.AVOID ANY PHYSICAL CONTACT. KEEP CONTAINERS TIGHTLY CLOSED

Other Precautions:WARNING! HARMFUL IF SWALLOWED. DO NOT TAKE INTRNLLY. AVOID CONTACT W/EYE, & PROLNGD/REPEATD SKIN CONTCT;EMPTY CONTNR MAY CONTAIN RESIDUAL PROD;WASH CONTMNTD CLOTHG/AREA. DISCARD CONTMNTD SHOES/CLOTH.

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

Respiratory Protection:NONE SHOULD BE NEEDED

Ventilation:GENERAL VENTILATION IS RECOMMENDED

Protective Gloves

:IMPERMEABLE

Eye Protection:CHEM SPLASH GOGGLES

Other Protective Equipment:FULL WORK CLOTHING TO PREVENT REPEATED OR PROLONGED CONTACT.

Work Hygienic Practices:WASH HANDS THOROUGHLY AFTER USE.

Supplemental Safety and Health

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

HCC:N1

Boiling Pt:B.P. Text:212F, 100C

Vapor Density:9.7

Spec Gravity:1.16

pH:11.5

Solubility in Water:COMPLETE

Appearance and Odor:REDISH LIQUID, ODORLESS

=====
Stability and Reactivity D

ata =====

Stability Indicator/Materials to Avoid: YES

STRONG ACIDS, AMINES.

Stability Condition to Avoid: NOT KNOWN

Hazardous Decomposition Products: OXIDES OF CARBON, AND OXIDES OF NITROGEN MAY BE FORMED.

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

Waste Disposal Methods: PER MFR, IF THIS PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF HAZARDOUS WASTE AS DEFINED UNDER RCRA; AS A NON-HAZARDOUS LIQ WASTE, IT SHOULD BE SOLIDIFIED BEFORE DISPOSAL TO A SANITARY LANDFILL. FOLLOW ALL REGULATIONS FOR DISPOSAL.

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 responsibility for the suitability of this information to their particular situation.