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DATE OF ISSUE  
10/27/86SUPERSEDES  
09/27/85

## SECTION I - GENERAL INFORMATION

CHEMICAL NAME & SYNONYMS  
N/ATRADE NAME & SYNONYMS  
REVEALCHEMICAL FAMILY  
AMINE STRIPPERFORMULA  
X<- MIXTUREMANUFACTURERS NAME:  
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## SECTION II- HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL  
COMPONENTS AS THE PRODUCT MIXTURE HAS NOT BEEN TESTED  
AS A WHOLE.

| CHEMICAL NAME (INGREDIENTS)   | HAZARD    | TLV*    | PEL*      | CAS#      |
|-------------------------------|-----------|---------|-----------|-----------|
| SODIUM METASILICATE           | SKIN IRR  | 2MG/M3  | 2MG/M3 1. | 6834-92-0 |
| ETHYLENE GLYCOL MONOBUTYL     |           |         |           |           |
| ETHER                         | SKIN IRR  | 25 PPM  | 50 PPM 1. | 111-76-2  |
| NONYLPHENOXYPOLYETHOXYETHANOL | EYE IRR.  | N/A 4   | N/A 4     | 9016-45-9 |
| MONOETHANOLAMINE              | CORROSIVE | 3PPM 1. | 8MG/M3 1. | 141-43-5  |

## SECTION III - PHYSICAL DATA

REVEAL

(CONTINUED)

## SECTION III - PHYSICAL DATA

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|                                   |          |                                 |             |
|-----------------------------------|----------|---------------------------------|-------------|
| BOILING PT. (FAHRENHEIT)          | 210      | SPEC GRAVITY (H2O=1)            | 1.010       |
| VAPOR PRESSURE (MM HG)            | 18       | COLOR                           | BLUE        |
| VAPOR DENSITY (AIR=1)             | 0.6      | ODOR                            | SASAFRASS   |
| PH @ 100%                         | 11.8     | CLARITY                         | TRANSPARENT |
| PERCENT VOLATILE<br>BY VOLUME (%) | 95       | EVAPORATION RATE<br>(BU AC = 1) | 0.10        |
| SOLUBILITY IN WATER               | COMPLETE |                                 |             |
| VISCOSITY                         | N/A      |                                 |             |

## SECTION IV - FIRE AND EXPLOSION HAZARD

|                               |             |                  |             |                |
|-------------------------------|-------------|------------------|-------------|----------------|
| FLASH POINT (METHOD USED)     | NON-FLAMM/A | FLAMMABLE LIMITS | LEL         | UEL            |
|                               |             |                  | N/A         | N/A            |
| EXTINGUISHING MEDIA "ALCOHOL" | X<-FDAM     | X<-CO2           | X<-CHEMICAL | X<-WATER SPRAY |
|                               | X<-FDAM     |                  |             | X<-OTHER       |

SPECIAL FIRE FIGHTING PROCEDURES  
WEAR NIOSH/MSHA APPROVED RESPIRATOR WHEN FIGHTING FIRES IN CONFINED AREAS  
TO PROTECT FROM ACRID SMOKE AND HAZARDOUS DECOMPOSITION PRODUCTS.

## UNUSUAL FIRE &amp; EXPLOSION HAZARDS

NONE KNOWN

## SECTION V - HEALTH HAZARD DATA

## THRESHOLD LIMIT VALUE :

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

## EFFECTS OF OVEREXPOSURE

- ACUTE - (SHORT TERM EXPOSURE)  
ACUTE EXPOSURE FROM THIS ALKALINE MIXTURE MAY RESULT IN REDDENING  
OF THE SKIN, MODERATE IRRITATION AND POSSIBLE DISCOMFORT. IRRITATING  
BY INHALATION AND BY MIST TO UPPER RESPIRATORY TRACT OR OTHER  
MUCOUS MEMBRANE AREAS. EYE CONTACT PRODUCES TEARING, IRRITATION,

AND DISCOMFORT. ACCIDENTAL INGESTION MAY CAUSE NAUSEA AND DIARRHEA AND IRRITATION OF INTESTINAL LINING.

CHRONIC - (LONG TERM EXPOSURE)  
LONGTERM MISUSE RESULTING FROM AIRBORNE CONCENTRATIONS OF MIST OR SPRAY MAY CAUSE DAMAGE TO UPPER RESPIRATORY TRACT. CHRONIC EFFECTS MAY RESULT IN SUPERFICIAL DESTRUCTION OF SKIN TISSUE AND DERMATITIS. CHRONIC EYE EXPOSURE CAN LEAD TO DESTRUCTION OF EYE TISSUE TO BLINDNESS. TARGET ORGANS INCLUDE: LIVER, KIDNEY, LYMPHOID SYSTEM, SKIN, BLOOD, EYES.

PRIMARY ROUTE OF ENTRY: X<-- INHALATION <-- INGESTION X<-- ABSORPTION

EMERGENCY & FIRST AID PROCEDURES

INHALATION  
TYPICALLY NOT A HAZARD, BUT GET TO FRESH AIR AND TREAT SYMPTOMATICALLY

EYE CONTACT:  
OBJECT IS TO SEEK MEDICAL ATTENTION IMMEDIATELY. IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES HOLDING EYELIDS APART TO ENSURE FLUSHING OF THE ENTIRE EYE SURFACE. SEEK MEDICAL ATTENTION IF ANY IRRITATION PERSISTS.

SKIN CONTACT:  
WASH WITH PLENTY OF WATER. SEEK MEDICAL ATTENTION IN ANY IRRITATION PERSISTS.

INGESTION:  
IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER. IF AVAILABLE, GIVE SEVERAL GLASSES OF CITRUS JUICE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION IMMEDIATELY.

NOTES TO PHYSICIAN:  
SODIUM METASILICATE: GASTRIC LAVAGE IS INDICATED.  
ETHYLENE GLYCOL MONO BUTYL ETHER: ORGANIC ABNORMALITY IN MAN RESULTING FROM EXPOSURE BY ANY ROUTE LIKELY WOULD BE AN ABNORMAL BLOOD PICTURE, CHARACTERIZED BY ERYTHROPENIA, RETICULOCYTOSIS, GRANULOCYTOSIS, AND LEUKOCYTOSIS. AGGRAVATES LIVER AND KIDNEY CONDITIONS

## SECTION VI - TOXICITY INFORMATION

|                                                                                                                                                                                                                       |                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SODIUM METASILICATE:<br>SKN-HMN: 250MG/24 SEV. 2.<br>ORAL-PIG: LD50 = 250MG/KG. 2.                                                                                                                                    | MONOETHANOLAMINE<br>ORL-RAT LD50: 2100MG/KG 2.<br>SKN-RBT LD50: 1000MG/KG 2.<br>IRRITANT STUDIES<br>SKN-RBT: 505 MG OPEN MODERATE 2.<br>EYE-RBT 763MG SEVERE 2. |
| ETHYLENE GLYCOL MONOBUTYL ETHER:<br>IHL-HMN: TCLO = 195 PPM/8H IRR. 2.<br>ORAL-RAT: LD50 = 1480MG/KG. 2.<br>SKN-RBT: 500 MG. 3.<br>EYE-RBT: 18 MG. 3.<br>NONYLPHENOXYPOLYETHOXYETHANOL<br>LD50 2600MG/KG 4.<br>RAT 4. |                                                                                                                                                                 |

## REVEAL

## SECTION VII - REACTIVITY DATA

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|           |            |             |                     |
|-----------|------------|-------------|---------------------|
| STABILITY | X<--STABLE | <--UNSTABLE | CONDITIONS TO AVOID |
|-----------|------------|-------------|---------------------|

N/A

INCOMPATIBILITY (MATERIALS TO AVOID)

DARKENS: ALUMINUM, TIN, ZINC  
ETCHES: ANODIZED ALUMINUM, GLASS

HAZARDOUS DECOMPOSITION PRODUCTS  
OXIDES OF CARBON AND ACRID SMOKE

|           |   |                     |                |                     |
|-----------|---|---------------------|----------------|---------------------|
| HAZARDOUS | X | WILL NOT<br>--OCCUR | MAY<br>--OCCUR | CONDITIONS TO AVOID |
|-----------|---|---------------------|----------------|---------------------|

POLYMERIZATION

## SECTION VIII - SPILL OR LEAK PROCEDURES

STEPS TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  
SMALL SPILL: NEUTRALIZE WITH WATER AND FLUSH DOWN DRAIN.  
LARGE SPILL: STOP LEAKS, CONTAIN SPILL. REMOVE BY WET VACUUM OR ABSORBANT.  
NEUTRALIZE WITH LARGE AMOUNTS OF WATER. REUSE SPILLED MATERIAL IF POSSIBLE, OTHERWISE PLACE IN CLOSED, LABELED CONTAINER AND STORE IN SAFE PLACE. PERSONS PERFORMING WORK SHOULD WEAR ADEQUATE PROTECTIVE CLOTHING.

WASTE DISPOSAL METHOD

DISPOSE OF IN ACCORDANCE WITH STATE, FEDERAL AND LOCAL REGULATIONS CONCERNING HEALTH POLLUTION. NORMAL PROCEDURE: SKIM OFF FLOATING OIL & GREASE AND FLUSH DOWN DRAIN OR SEPARATE IN AUTOMATIC OIL/WATER SEPARATOR AND FLUSH DOWN DRAIN.

NEUTRALIZING AGENT

DILUTE (10%) HCL OR FLUSH WITH LARGE AMOUNTS OF WATER.

## SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION  
GENERAL EXHAUST VENTILATION SUFFICIENT TO MAINTAIN WORKPLACE CONCENTRATION BELOW PERMISSABLE EXPOSURE LIMITS.

RESPIRATORY PROTECTION

TYPICAL USE OF PRODUCT DOES NOT REQUIRE THE USE OF A RESPIRATOR. IF PRODUCT IS MISTED, USE NIOSH APPROVED MASK FOR SPRAY MISTS. IN AN EMERGENCY SITUATION, THE FOLLOWING RESPIRATOR IS RECOMMENDED:  
IDLH-700 PPM - CCROVF/GMOV/SAF/SCBAF

PROTECTIVE GLOVES  
WEAR IMPERVIOUS GLOVES (SYNTHETIC, ELASTOMERS OR  
PVC) & PROTECTIVE CLOTHING AS REQUIRED.

EYE PROTECTION  
CHEMICAL GOGGLES SHOULD BE WORN DEPENDING UPON  
SEVERITY OF EXPOSURE.

OTHER PROTECTION  
WEAR RUBBER SHOES OR BOOTS

## SECTION X - STORAGE AND HANDLING INFORMATION

STORAGE TEMPERATURE  
120 F. <--MAX 32 F. <--MIN INDOOR HEATED REFRIGERATED OUTDOOR  
X X

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING  
STORE AT MODERATE TEMPERATURES. KEEP AWAY FROM  
CHILDREN. READ ENTIRE LABEL BEFORE USING.

OTHER PRECAUTIONS  
IT IS ADVISABLE TO WEAR OVERALLS AND LONG SLEEVE  
SHIRT TO PREVENT CONTACT WITH SKIN.

## SECTION XI - TRANSPORTATION \* (FOR FUTURE USE)

APPLICABLE REGULATIONS  
<--49 CFR <--IMCO <--TARIFF 6 D <--IATA <--MILITARY AIR (AFR 71-4)

SHIPPING NAME

HAZARD CLASS ID NUMBER REPORT QTY

LABELS LIMITED QTY

UNIT CONTAINER

DOT SPS CONTAINER NET EXPLOSIVE WT.

AEROSOL PROPELLANT(S)

## REVEAL

## SECTION XII - REFERENCES

PAGE : 06

1. THRESHOLD LIMIT VALUE FOR CHEMICAL SUBSTANCES IN THE WORK  
ENVIRONMENT, 2ND EDITION, ACGIH, 1985.
2. DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 6TH EDITION,  
N. IRVING SAX.
3. NIOSH REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, 1982.
4. VENDOR'S MSDS.

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