

# MSDS

## MATERIAL SAFETY DATA SHEET

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### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULA: SEE SECTION 2

PART NUMBER: 200016/200064/200055

DESCRIPTION: AQUEOUS SOLUTION OF NITRITES, NITRATES, AND SODIUM TETRABORATE

MANUFACTURER AND SUPPLIER:

THE PENRAY COMPANIES, INC.

440 DENNISTON COURT

WHEELING, IL 60090

PHONE: 847-459-5000

EMERGENCY: 1-800-752-7869 x7

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### SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

SODIUM TETRABORATE:

CAS #: 1330434

% OF PRODUCT: BT 1 5

EXPOSURE LIMITS:

OSHA TWA - PPM=NG, MG/M3=10

ACGIH - PPM=NG, MG/M3=1

SODIUM METASILICATE:

CAS #: 6834920

% OF PRODUCT: BT 1 5

EXPOSURE LIMITS:

OSHA TWA - PPM=NG, MG/M3=15

ACGIH - PPM=NG, MG/M3=10

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### SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

HARMFUL OR FATAL IF SWALLOWED OR ABSORBED THROUGH SKIN.

**POTENTIAL HEALTH EFFECTS:**

CARCINOGENICITY: PRODUCT NOT CONSIDERED A CARCINOGEN BY OSHA, NTP, OR IARC.

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE: PRE-EXISTING EYE OR SKIN CONDITIONS MAY BE AGGRAVATED BY OVEREXPOSURE TO THIS PRODUCT.

TARGET ORGANS: NONE KNOWN

PRIMARY ENTRY ROUTES: EYE AND SKIN ABSORPTION.

**ACUTE HEALTH EFFECTS:**

EYE CONTACT: WILL CAUSE IRRITATION UPON CONTACT.

SKIN CONTACT: PROLONGED OR REPEATED CONTACT WITH SKIN CAN CAUSE IRRITATION.

INHALATION: PRODUCT NON-VOLATILE, INHALATION HAZARD UNLIKELY.

INGESTION: POSSIBLE REPRODUCTIVE HAZARD UPON INGESTION TO SODIUM NITRITE. REPEATED SKIN CONTACT CAN CAUSE PERSISTENT IRRITATION AND DERMITITIS.

HMIS RATINGS:

HEALTH 1, FLAMMABILITY 0, REACTIVITY 0

SCALE: 0=INSIGNIFICANT, 1=HEALTH, 2=MODERATE, 3=HIGH, 4=SEVERE

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#### **SECTION 4 - FIRST AID MEASURES**

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUMTS. SEEK MEDICAL ATTENTION.

SKIN CONTACT: WASH AREA WITH SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. SEEK MEDICAL ATTENTION. INHALATION HAZARD UNLIKELY DUE TO LOW VOLATILITY OF PRODUCT.

INGESTION: INDUCE VOMITING. GIVE CONSCIOUS VICTIMS GLASS OF WATER AND SEEK MEDICAL ATTENTION. NEVER GIVE WATER TO UNCONSCIOUS VICTIM.

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#### **SECTION 5 - FIRE FIGHTING MEASURES**

CLOSED CUP FLASH PT.: NG  
OPEN CUP FLASH PT.: NG  
FIRE POINT: NG  
AUTO IGNITION: NG  
LOWER EXPLOSION LIMIT: NG  
UPPER EXPLOSION LIMIT: NG

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS: NONE KNOWN.

FIRE FIGHTING INSTRUCTIONS: CONTAINERS CAN BUILD UP PRESSURE IF EXPOSED TO FIRE. CONTAINERS SHOULD BE COOLED WITH WATER SPRAY.

FIRE FIGHTING EQUIPMENT: SELF-CONTAINED BREATHING APPARATUS WITH FULL FACE PIECE OPERATED IN PRESSURE DEMAND OR POSITIVE PRESSURE MODE.

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#### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

SPILL/LEAK PROCEDURES: NOTIFY SAFETY PERSONNEL, EVACUATE ALL UNNECESSARY PERSONNEL, AND PROVIDE ADEQUATE VENTILATION. IF FEASIBLE WITHOUT RISK, CLEAN-UP PERSONNEL SHOULD STOP LEAK. ALL CLEAN-UP PERSONNEL SHOULD WEAR PROPER PERSONAL PROTECTIVE EQUIPMENT.

SMALL SPILL: CLEAN WITH INERT ABSORBENT AND PLACE IN RECOVERY DRUMS FOR DISPOSAL.

LARGE SPILL: DIKE TO PREVENT FURTHER MIGRATION OF MATERIAL. DO NOT RELEASE INTO WATERWAYS OR SEWERS. FOLLOW APPLICABLE OSHA REGULATION 20CFR1910.120.

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#### **SECTION 7 - HANDLING AND STORAGE**

STORAGE REQUIREMENTS:  
STORE IN CLEAN, DRY LOCATION, AWAY FROM EXCESSIVE HEAT.

HANDLING PRECAUTIONS: WASH THOROUGHLY AFTER HANDLING. DO NOT GET INTO EYES, ON SKIN, OR ON CLOTHING.

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## **SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION EQUIPMENT**

### ENGINEERING CONTROLS:

EYE WASH STATION AND SAFETY SHOWER

### VENTILATION:

MATERIAL NON-VOLATILE. GENERAL VENTILATION SHOULD BE SUFFICIENT.

### PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: CHEMICAL SPLASH GOGGLES WITH INDIRECT OR NO VENTILATION.

SKIN PROTECTION: CHEMICAL RESISTANT GLOVES AND APRON.

RESPIRATORY PROTECTION: NONE REQUIRED UNDER NORMAL USE.

COMMENTS: NEVER EAT, DRINK, OR SMOKE IN WORK AREAS.

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## **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

BOILING POINT: BT 212°F - 215°F

FREEZING POINT: < 32°F

SPECIFIC GRAVITY: BT 1.12 - 1.16

VAPOR PRESSURE: NG

VAPOR DENSITY: NG

PERCENT VOLATILE: NG

EVAPORATION RATE: NG

pH: BT 11.1 - 11.8

MOLECULAR WEIGHT: NG

SOLUBILITY IN WATER: COMPLETELY

ODOR/APPEARANCE/OTHER CHARACTERISTICS: ON ODOR, RED LIQUID

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## **SECTION 10 - STABILITY AND REACTIVITY INFORMATION**

STABILITY: MATERIAL IS STABLE

POLYMERIZATION: HAZARDOUS POLYMERIZATION CANNOT OCCUR.

CHEMICAL INCOMPATIBILITIES: STRONG OXIDIZING AGENTS. STRONG REDUCING AGENTS.

CONDITIONS TO AVOID: EXCESSIVE HEAT, OPEN FLAME.

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE.

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## **SECTION 11 - TOXICOLOGICAL INFORMATION**

SODIUM NITRATE - LD50 (ORAL) 4300 mg/kg

SODIUM NITRITE - LD50 120 mg/kg

SODIUM TETRABORATE - LD50 (ORAL) 3200 mg/kg

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## **SECTION 12 - ECOLOGICAL INFORMATION**

NO DATA.

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## **SECTION 13 - DISPOSAL CONSIDERATIONS**

AS A WASTE, THIS PRODUCT IN IT'S RAW FORM DOES NOT MEET THE CRITERIA AS A HAZARDOUS WASTE AS DEFINED BY RCRA (40CFR361). AFTER USE THIS PRODUCT MAY OR MAY NOT MEET THE CRITERIA AS A HAZARDOUS WASTE. IN THIS CASE THE USED PRODUCT SHOULD BE TESTED TO DETERMINE IF IT MEETS THIS CRITERIA.

AS A WASTE, THIS PRODUCT CAN BE TREATED TO MEET LOCAL SANITARY DISTRICT STANDARDS.

DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE STATE, FEDERAL, AND LOCAL REGULATIONS.

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## **SECTION 14 - TRANSPORTATION INFORMATION**

### SHIPPING REGULATIONS:

UN/NA NUMBER: NG  
DOT HAZARD CLASS: NONE  
SHIPPING LABEL: NONE  
SHIPPING NAME: 1  
DOMESTIC: NOT REGULATED  
EXPORT: NOT REGULATED

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## **SECTION 15 - REGULATORY INFORMATION**

### U.S. FEDERAL REGULATIONS

OSHA: CONSIDERED HAZARDOUS AS DEFINED BY 29CFR1910.1200

EPA SARA TITLE III:

SECTION 311-312 (40CFR370): IF STORED IN EXCESS OF THE THRESHOLD QUANTITIES, THIS PRODUCT SHOULD BE REPORTED AS A(N) IMMEDIATE (ACUTE) HEALTH HAZARD, AND A DELAYED (CHRONIC) HEALTH HAZARD.

SECTION 313 (40CFR372): THIS PRODUCT DOES NOT CONTAIN INGREDIENTS WHICH ARE SUBJECT TO THE REPORTING REQUIREMENTS SARA 313.

### STATE REGULATIONS:

CALIFORNIA PROPOSITION 65: THIS PRODUCT DOES NOT CONTAIN INGREDIENTS WHICH ARE LISTED ON CURRENT PROPOSITION 65 LIST.

NEW JERSEY RIGHT TO KNOW: THIS PRODUCT CONTAINS THE FOLLOWING INGREDIENTS, WHICH ARE NON-HAZARDOUS, BUT ARE AMONG THE TOP FIVE INGREDIENTS IN THIS PRODUCT:

WATER - CAS # 7732-18-5  
SODIUM NITRITE - 7632-00-0  
SODIUM NITRATE - 7631-99-4

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## **SECTION 16 - OTHER INFORMATION**

PREPARER'S NAME & TITLE:

PAUL A. ZOUBEK, ENVIRONMENTAL HEALTH & SAFETY MANAGER

PREPARATION DATE: 6/15/95

MSDS NUMBER: 2000

REVISION: 4

NOTES:

NG = "NOT GIVEN"

BT = "BETWEEN"

< = "LESS THAN"

> = "GREATER THAN"

USER'S RESPONSIBILITY: THIS MSDS PROVIDES ENVIRONMENTAL, HEALTH, AND SAFETY INFORMATION. THIS PRODUCT IS TO BE USED IN APPLICATION CONSISTENT WITH OUR PRODUCT LITERATURE AND CONTAINER LABEL. INDIVIDUALS HANDLING THIS PRODUCT SHOULD BE INFORMED OF THE RECOMMENDED SAFETY PRECAUTIONS AND HAVE ACCESS TO THIS MSDS. PLEASE CONTACT YOUR LOCAL SALES REPRESENTATIVE OR OUR ENVIRONMENTAL HEALTH AND SAFETY

DEPARTMENT FOR FURTHER INFORMATION.