MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT and COMPANY IDENTIFICATION

Arch Chemicals, Inc.

For MSDS Questions: 1-800-511-MSDS Emergency telephone: (800) 654-6911

For a transport accident or leak, fire or

PC:

major spill, call CHEMICAL EMERGENCY RESPONSE CENTER (800) 424-9300.

Material Name: Free Chlorine UDV
Product Name: Free Chlorine, UDV

Read the entire MSDS for a complete hazard assessment.

SECTION 2: COMPOSITION/INFORMATION on INGREDIENTS*

CAS Number % Conc⁺ Ingredient Name

Proprietary 99.0 Proprietary Ingredients

006283-63-2 < 1.0 N,N diethyl-p-phenylenediamine sulfate

SECTION 3: HAZARDS IDENTIFICATION*

*As defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. See Section 8 for exposure guidelines & Section 11 for toxicology and ingredient specific information.

WHITE POWDER. NO ODOR. NO PHYSICAL HAZARDS. RESPIRATORY IRRITANT.

GASTROINTESTINAL IRRITATION. EYE

IRRITANT. SKIN IRRITANT.

POTENTIAL HEALTH HAZARDS

Eye: This product is probably eye irritant based on commercially

available information.

Skin: This product is skin irritant based on commercially

available information.

Inhalation: Particulates of this material will probably irritate eyes,

nose, and respiratory passages.

Ingestion: In humans, irritation of the mouth, pharynx, esophagus, and

stomach can develop following ingestion of this material.

^{*}Ingredients not precisely identified are either proprietary or nonhazardous. Values are not product specifications. $^{+}$ Percent concentration by weight.

SECTION 4: FIRST AID MEASURES

General First Aid Procedures

Eyes:

Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

Skin:

Wash off of skin with plenty of soap and water. If redness, itching or burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

Inquestion:

DO NOT INDUCE VOMITING. Give one or two glasses of water to drink and refer to medical personnel or take direction from either a physician or a poison control center. Never give anything by mouth to an unconscious person.

Inhalation:

Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties

Flash Point: Not applicable

Upper Flammability Limit (UEL): No Data Lower Flammability Limit (LEL): No Data Autoignition Temperature: No Data

Products of combustion:

Combustion products: Oxides of carbon, nitrogen and sulfur.

Extinguishing media:

Carbon dioxide, foam, dry chemical. Do not use water.

Fire fighting instructions:

Self-contained breathing apparatus with full facepiece and protective clothing if involved in a fire of other materials.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill procedures:

Wear skin, eye, and respiratory protection during cleanup. Recover material into a chemical waste container. Do not mix or contaminate with incompatible materials. Cover container and remove from work area.

SECTION 7: HANDLING and STORAGE

Handling:

Avoid breathing particulates.

Prevent skin and eye contact.

Normal chemical handling and storage.

Storage:

Moisture sensitive.

Store in a cool area with good ventilation.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines:

No ACGIH TLV or OSHA PEL assigned to this product. Minimize exposure in accordance with good hygiene practice.

Engineering controls:

Use permitted ventilation adequate to maintain safe levels.

PROTECTIVE EQUIPMENT

Respiratory protection:

Use NIOSH certified full facepiece respirator for dusts where exposure to the dust may occur.

Protective clothing:

Impervious gloves and apron.

Wash separately from other laundry.

Eye protection:

Safety glasses with side shields.

Other

Eyewash station and safety shower in work area.

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

Physical State: Powder

Appearance: White

Odor: None

Odor Threshold: No Data Boiling Point: No Data

Decomposition Temperature: No Data

Melting Point: No Data

Vapor Pressure (mm Hg at 20°C): No Data

Vapor Density (air = 1): No Data Solubility in Water: Soluble Solubility in Other: No Data

Octanol/Water Partition Coefficient: No Data

pH: 6.00 (aqueous slurry) Specific Gravity: No Data

Bulk Density: No Data

% Volatile by Volume: No Data

VOC (%): No Data Viscosity: No Data

SECTION 10: STABILITY and REACTIVITY

Chemical Stability

Stable under normal conditions.

Conditions to avoid:

Heat and moisture sensitive.

Incompatibility:

Strong oxidizers.

Hazardous polymerization:

Not known to occur.

Hazardous decomposition products:

Oxides of carbon, nitrogen and sulfur.

SECTION 11: TOXICOLOGICAL INFORMATION

Contact the addressee in Section 1 for product toxicology information.

Regulated carcinogen(s):

This product contains no components present at concentrations equal to or greater than 0.1% listed by IARC, OSHA, NTP or ACGIH as a carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

No Data

Environmental fate:

No Data

Other:

No Data

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal method:

Dispose of properly.

Container disposal:

Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue. Puncture or otherwise destroy empty container and dispose of in a facility permitted for nonhazardous waste.

SECTION 14: TRANSPORT INFORMATION

Not regulated by the US DOT.

SECTION 15: REGULATORY INFORMATION

TSCA (Toxic Substances Control Act):

All ingredients are on the TSCA Chemical Substances Inventory.

SARA Title III (Emergency Planning and Community Right-To-Know Act):

313 Reportable ingredients:

This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.

California Proposition 65:

This product is not known to contain any chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

Canadian Regulations:

CEPA (Canadian Environmental Protection Act): All ingredients NOT confirmed on the DSL (Domestic Substances list).

WHMIS Classifications:

This is not a (WHMIS) controlled product in Canada.

SECTION 16: OTHER INFORMATION

We assigned NFPA and HMIS ratings to this product based on the hazards of its ingredient(s). Because the customer is most aware of the application of the product, he must ensure that the proper personal protective equipment (PPE) is provided consistent with information contained in the product MSDS.*

NFPA Rating:
Health: 1
Fire: 0
Reactivity: 0

Reactivity: 0 Special: No Data

HMIS Rating:
Health: 1
Fire: 0
Reactivity: 0

**Personal Protection: No Data

*This information is intended solely for the use of individuals trained in the particular hazard rating system.

**See appropriate MSDS section.

Revision status: Version number: 0004

MSDS Version date: 12/11/98

Revision: No Data

Issue date: 12/16/98

Revision:

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Prepared by: PJR/EL Approved by: TW/KRB/RH Approval date: 12/14/98

THE PRODUCT NAMES LISTED ARE TRADEMARKS OF ARCH CHEMICALS, INC. OR ITS AFFILIATED COMPANIES.

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This MSDS was prepared by the Safety, Health and Environment Group of at 501 Merritt, Norwalk, CT 06856. For further questions, call during regular business hours at 1-800-511-MSDS.