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MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:

Synonyms: Chemical Family: Molecular Formula: Molecular Weight: DAPCO[™] 3008 Curative, Part B None Modified aliphatic amine Mixture Mixture

D Aircraft Products, Inc. 1191 HAWK CIRCLE, ANAHEIM, CALIFORNIA 92807 714/632-8444

EMERGENCY PHONE (24 hours/day) - For emergency involving spill, leak, fire, exposure or accident call: Asia Pacific Region:

Australia - +61-3-9663-2130 or 1800-033-111 China (PRC) - +86(0)532-8388-9090 (NRCC) New Guinea - +61-3-9663-2130 New Zealand - +61-3-9663-2130 or 0800-734-607 All Others - +65-633-44-177 (CareChem24 Singapore) **Canada:** 1-905-356-8310 (Cytec Welland, Canada plant) **Europe/Africa/Middle East:** +44-(0)208-762-8322 (CareChem24 UK) **Latin America:** Brazil - 0800 0111 767 (SOS Cotec) Chile - +56-2-247-3600 (CITUC QUIMICO) All Others - +52-376-73 74122 (Cytec Atequiza, Mexico plant) **USA:** +1-703-527-3887 or 1-800-424-9300 (CHEMTREC)

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2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE AND ODOR:

| Color: | yellow |
|-------------|--------|
| Appearance: | paste |
| Odor: | amine |

STATEMENTS OF HAZARD: DANGER! CAUSES BURNS OF EYES AND SKIN

POTENTIAL HEALTH EFFECTS

EFFECTS OF EXPOSURE:

Acute oral (rat) and dermal (rabbit) LD50 values are estimated to be greater than 5,000 mg/kg and greater than 2,000 mg/kg, respectively. The 4-hour inhalation LC50 (rat) value is estimated to be greater than 20 mg/L. Direct contact with this material may cause severe eye and skin irritation. Repeated or prolonged dermal contact may cause allergic skin reactions. Refer to Section 11 for toxicology information on the regulated components of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

OSHA REGULATED COMPONENTS

| Component / CAS No. Polyethylene polyamine | % < 5 | (w/w) | Carcinogen - | |
|--|-----------------|-------|-----------------|--|
| Diethylenetriamine 111-40-0 | 5 - 15 | | - | |
| Silicon dioxide, amorphous (included under CAS # 7631-86- 9) 112945-52-5 | 1 - 5 | | - | |
| Glass oxide 65997-17-3 | 5 - 15 | | - | |
| Bisphenol A 80-05-7 | 5 - 15 | | - | |

4. FIRST AID MEASURES

Ingestion:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Skin Contact:

Take off immediately all contaminated clothing. Wear impermeable gloves. Wash immediately with plenty of water and soap. Pay particular attention to skin crevices, nail folds, etc. Do not reuse contaminated clothing without laundering. Do not reuse contaminated leatherware.

Eye Contact:

Rinse immediately with plenty of water for at least 15 minutes. Obtain medical attention immediately.

Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Use water spray, carbon dioxide or dry chemical.

Protective Equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

Special Hazards:

Keep containers cool by spraying with water if exposed to fire.

6. ACCIDENTAL RELEASE MEASURES

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Personal precautions:

Where exposure level is known, wear approved respirator suitable for level of exposure. Where exposure level is not known, wear approved, positive pressure, self-contained respirator. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

Methods For Cleaning Up:

Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

7. HANDLING AND STORAGE

HANDLING

Precautionary Measures: Do not get in eyes, on skin or on clothing. Wash thoroughly after handling.

Special Handling Statements: None

STORAGE None

Storage Temperature: Room temperature **Reason:** Quality.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:

Utilize a closed system process where feasible. Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

Respiratory Protection:

For operations where inhalation exposure can occur, use an approved respirator recommended by an industrial hygienist after an evaluation of the operation. Where inhalation exposure can not occur, no respiratory protection is required. A full facepiece respirator also provides eye and face protection.

Eye Protection:

Prevent eye and skin contact. Provide eye wash fountain and safety shower in close proximity to points of potential exposure.

Skin Protection:

Prevent contamination of skin or clothing when removing protective equipment.

Additional Advice:

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

Exposure Limit(s)

111-40-0 Diethylenetriamine

OSHA (PEL): Not established ACGIH (TLV): (skin) 1 ppm (TWA) Other Value: Not established 112945-52-5 Silicon dioxide, amorphous (included under CAS # 7631-86-9) OSHA (PEL): 20 mppcf

| 111-40-0 | Diethylenetriamine | 9 |
|------------|--------------------|--|
| ACGIH (| TLV): | Not established |
| Other Va | lue: | Not established |
| 65997-17-3 | Glass oxide | |
| OSHA (F | PEL): | Not established |
| ACGIH (| TLV): | 1 f/cc respirable fibers (TWA) 5 mg/m ³ inhalable fraction (TWA) |
| Other Va | lue: | Not established |

9. PHYSICAL AND CHEMICAL PROPERTIES

| yellow |
|-------------------------|
| paste |
| amine |
| Not applicable |
| Not applicable |
| Not applicable |
| 4.7lbs/gal bulk density |
| Not applicable |
| <0.5 |
| Not available |
| Not applicable |
| Not applicable |
| Insoluble |
| Not available |
| Not applicable |
| |
| Not available |
| |

10. STABILITY AND REACTIVITY

| Stability: | Stable |
|--------------------------------------|--|
| Conditions To Avoid: | None known |
| Polymerization: | May occur |
| Conditions To Avoid: | Avoid contact with acids, bases or amines. |
| Materials To Avoid: | Avoid contact with acids, bases, epoxies and isocyantes. |
| Hazardous Decomposition Products: | Carbon monoxide (CO) Carbon dioxide oxides of nitrogen |

11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 2. HAZARDS IDENTIFICATION. Toxicological information on the regulated components of this product is as follows:

11. TOXICOLOGICAL INFORMATION

Silicon Dioxide has acute oral (rat) LD50 values ranging from 3160 mg/kg to >7500 mg/kg. The LC50 (rat) following a 4hour inhalation study is >0.25 mg/L (maximum attainable concentration). Chronic and sub-chronic inhalation tests with laboratory animals produced lung damage and death after the lung clearance mechanisms were overloaded. Amorphous silica does not cause the lung diseases crystalline silica is known to cause.

Diethylenetriamine has acute oral (rat) and dermal (rabbit) LD50 values of 1080 mg/kg and 1090 mg/kg, respectively. Repeated inhalation exposure can cause allergic respiratory reactions and asthmatic type responses. No mortality was seen in rats exposed to 300 ppm for 8-hours. Direct contact with Diethylenetriamine may cause severe eye and skin irritation. Repeated or prolonged dermal contact may cause allergic skin reactions.

Bisphenol A has acute oral (rat) and dermal (rabbit) LD50 values of 3250 mg/kg and 3 ml/kg, respectively. The acute 6hr inhalation LC50 is reported to be >170 mg/m³. Direct contact with bisphenol A caused mild skin and severe eye irritation when tested in rabbits. Prolonged or repeated contact with bisphenol A may cause allergic skin reaction. Dust may be irritating to the respiratory tract. Carcinogenicity studies with rats and mice have shown that bisphenol A does not cause cancer. Laboratory studies have shown that bisphenol A possesses weak estrogenic/antiestrogenic hormone activity. Mice fed bisphenol A experienced adverse effects on male reproductive success during a continuous breeding study. However, no evidence of reproductive toxicity was observed in adult male or female mice or rats in multigeneration reproduction studies when administered bisphenol A in feed. Developmental effects were observed in offspring at high doses only. Based on developmental toxicity studies, BPA is not teratogenic. High oral doses of bisphenol A caused central nervous system depression and liver and kidney damage in laboratory animals. Ethanol interacted synergistically with bisphenol A, causing lethality to mice in laboratory animal tests. The scientific integrity of low-dose responses reported in rodents following BPA exposures are not considered of sufficient robustness or reproducibility for determination of hazard.

Polyethylene polyamine has an estimated acute oral (rat) and dermal (rabbit) LD50 values of >3,500 mg/kg and > 600 mg/kg, respectively. Direct contact with this material may cause severe eye and skin irritation. Repeated skin contact can cause allergic dermatitis. Inhalation overexposure can cause irritation of the upper respiratory tract, nausea, and asthmatic type responses. Literature reports that this material has shown positive in vitro results in mutagenicity tests with and without metabolic activation.

Glass oxide is considered a nuisance particulate which will not cause adverse health effects other than respiratory congestion or irritation.

12. ECOLOGICAL INFORMATION

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The ecological assessment for this material is based on an evaluation of its components.

13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA `listed hazardous waste`or has any of the four RCRA `hazardous waste characteristics. Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA Iisted hazardous waste'; information contained in Section 15 of this MSDS is not intended to indicate if the product is a 'listed hazardous waste. RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

US DOT

Dangerous Goods? X Proper Shipping Name: Corrosive solid, basic, organic, n.o.s. Hazard Class: 8 Packing Group: II UN/ID Number: UN3263 Transport Label Required: Corrosive Technical Name (N.O.S.): aliphatic amine

TRANSPORT CANADA

Dangerous Goods? X Proper Shipping Name: Corrosive solid, basic, organic, n.o.s. Hazard Class: 8 Packing Group: II UN Number: UN3263 Transport Label Required: Corrosive Technical Name (N.O.S.): aliphatic amine

ICAO / IATA

Dangerous Goods? X Proper Shipping Name: Corrosive solid, basic, organic, n.o.s. Hazard Class: 8 Packing Group: II UN Number: UN3263 Transport Label Required: Corrosive Packing Instructions/Maximum Net Quantity Per Package: Passenger Aircraft: 814; 15 kg Cargo Aircraft: 816; 50 kg Technical Name (N.O.S.): aliphatic amine Dangerous Goods? X Proper Shipping Name: Corrosive solid, basic, organic, n.o.s. Hazard Class: 8 UN Number: UN3263 Packing Group: II Transport Label Required: Corrosive Technical Name (N.O.S.): aliphatic amine

15. REGULATORY INFORMATION

Inventory Information

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

Australia: One or more components of this product have NOT yet been included in the Australian Inventory of Chemical Substances (AICS) or assessed by NICNAS.

China: All components of this product are NOT included on the Chinese inventory.

Japan: All components of this product are NOT included on the Japanese (ENCS) inventory.

Philippines: All components of this product are NOT included on the Philippine (PICCS) inventory.

OTHER ENVIRONMENTAL INFORMATION

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

| Component / CAS No. | % | TPQ (lbs) | RQ(lbs) | S313 | TSCA 12B |
|---------------------|--------|-----------|---------|------|----------|
| Bisphenol A | 5 - 15 | None | Ô | Yes | No |
| 80-05-7 | | | | | |

PRODUCT HAZARD CLASSIFICATION UNDER SECTION 311 OF SARA

Acute

16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

Fire: 1 - Materials that must be preheated before ignition can occur.

Instability: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

Reasons For Issue:

Revised Section 2 Revised Section 3 Revised Section 8 This information is given without any warranty or representation. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation, and verification. Before using any product, read its label.