

Material Safety Data Sheet

Version 1.11
Revision Date 04/30/2006

MSDS Number 30000008829
Print Date 03/09/2008

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : DABCO ® T-9 Catalyst

Product Use Description : Polyurethane Catalyst

Company : Air Products and Chemicals, Inc
7201 Hamilton Blvd.
Allentown, PA 18195-1501

Telephone : 1-800-345-3148 Chemicals
1-800-752-1597 Gases and Electronic Chemicals

Emergency telephone number : 800-523-9374 USA
01-610-481-7711 International

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Weight)
Stannous octoate	301-10-0	97 %
Ethylhexanoic acid, 2-	149-57-5	3 %

CHEMICAL FAMILY: Organotin.

3. HAZARDS IDENTIFICATION

Emergency Overview

Moderate respiratory irritant.
Moderate skin irritant.
Moderate eye irritant.
May cause sensitization by skin contact.
Harmful by inhalation.

Potential Health Effects

Inhalation : May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system. Harmful if inhaled.

Eye contact : Causes eye irritation.

Skin contact : Causes skin irritation.

Chronic Health Hazard : This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Repeated or prolonged contact causes sensitization, asthma and eczemas.

Exposure Guidelines

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- Target Organs : Respiratory system.
Skin.
Eyes.
Liver.
- Symptoms : Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat.

Aggravated Medical Condition

Liver disorders (such as jaundice or liver enlargement). Adverse respiratory effects (such as cough, tightness of chest or shortness of breath). Asthma. Skin disorders and Allergies. Adverse skin effects (such as rash, irritation or corrosion). Adverse eye effects (such as conjunctivitis or corneal damage). Eye disease

4. FIRST AID MEASURES

- General advice : Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
- Eye contact : Rinse immediately with plenty of water also under the eyelids for at least 20 minutes. Remove contact lenses.
- Skin contact : Wash off immediately with plenty of water for at least 20 minutes. Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Take off contaminated clothing and shoes immediately. NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.
- Ingestion : If a person vomits when lying on his back, place him in the recovery position. Prevent aspiration of vomit. Turn victim's head to the side.
- Inhalation : If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.

5. FIRE FIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam.
Carbon dioxide (CO₂).
Dry chemical.
Dry sand.
Limestone powder.
- Specific hazards : Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces obnoxious and toxic fumes.
- Special protective equipment for fire-fighters : Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.
- Environmental precautions : Construct a dike to prevent spreading.
- Methods for cleaning up : Approach suspected leak areas with caution. Contact Air Products' Emergency Response Center for advice. Place in appropriate chemical waste container.
- Additional advice : Open enclosed spaces to outside atmosphere. If possible, stop flow of product.

7. HANDLING AND STORAGE

Handling

Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid breathing vapors and/or aerosols. Avoid contact with eyes. Use only in well-ventilated areas. Material should be closed immediately after use. It is recommended that all material be used as soon as possible after opening (especially in warm humid climates). Use personal protective equipment. When using, do not eat, drink or smoke.

Storage

Keep away from alkalis. Keep away from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Minimize exposure to air. Exposure may cause material to degrade. Store under a nitrogen atmosphere.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

- Provide readily accessible eye wash stations and safety showers.
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment

- Respiratory protection : Wear appropriate respirator when ventilation is inadequate.
- Hand protection : Nitrile rubber.
Impervious gloves.
The breakthrough time of the selected glove(s) must be greater than the intended use period.
- Eye protection : Chemical resistant goggles must be worn.
- Skin and body protection : Long sleeve shirts and trousers without cuffs.
- Environmental exposure controls : Construct a dike to prevent spreading.

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Special instructions for protection and hygiene : Provide readily accessible eye wash stations and safety showers. Wash at the end of each workshift and before eating, smoking or using the toilet.

Exposure limit(s)

Stannous octoate	Time Weighted Average (TWA): ACGIH	-	2 mg/m3
Stannous octoate	Recommended exposure limit (REL): NIOSH	-	2 mg/m3
Stannous octoate	PEL: OSHA Z1	-	2 mg/m3
Stannous octoate	Time Weighted Average (TWA): OSHA Z1A	-	2 mg/m3

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid.
Color : Light yellow.
Odor : Slight.
Relative density : 1.29 (water = 1)
Vapor pressure : < 5.00 mmHg at 21 °C
Density : 80.532 lb/ft3 (1.29 g/cm3) at 70 °F (21 °C)
Boiling point/range : > 392 °F (> 200 °C)
Flash point : > 137.78 °C

10. STABILITY AND REACTIVITY

Stability : Stable under normal conditions.
Conditions to avoid : Exposure to sunlight.
Materials to avoid : Amines.
Incompatible with bases.
Reducing agents.
Oxidizing agents.
Hazardous decomposition products : Organic acid vapors.
Tin oxide.
Carbon monoxide.
Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Acute Health Hazard

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- Ingestion : LD50 : 3,400 mg/kg
Species : Rat.
- Inhalation : No data is available on the product itself.
- Skin. : LD50 : > 2,000 mg/kg
Species : Rabbit.
Method : Estimated.
- Eye irritation/corrosion : Moderate eye irritation.
- Acute dermal irritation/corrosion : Moderate skin irritation.
- Sensitization : May cause sensitization by skin contact.

Chronic Health Hazard

Male reproductive toxicity, fetotoxicity, teratogenicity and adverse liver effects have been seen in rats exposed to 2-Ethylhexanoic Acid. Feeding studies with 2-Ethylhexanoic acid in the rat and rabbit during the entire period of organogenesis caused developmental toxicity only at maternally toxic doses in the rat and no developmental toxicity in the rabbit (Fundam. App. Toxicol. 20, p. 199: 1993).

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

- Aquatic toxicity : No data is available on the product itself.
- Toxicity to fish - Components
Stannous octoate LC50 : 111 mg/l Species : Fish.
- Toxicity to daphnia - Components
Stannous octoate EC50 : 60 mg/l Species : Daphnia magna.
- Toxicity to other organisms : No data available.

Persistence and degradability

- Mobility : No data available.
- Bioaccumulation : No data is available on the product itself.

13. DISPOSAL CONSIDERATIONS

- Waste from residues / unused products : Contact supplier if guidance is required.
- Contaminated packaging : Dispose of container and unused contents in accordance with federal, state,

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and local requirements.

14. TRANSPORT INFORMATION

CFR

not regulated

IATA

not regulated

IMDG

not regulated

CTC

not regulated

Further Information
Not dangerous goods

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):
T-butylcatechol, 4- (inhibitor)

OSHA Hazard Communication Standard (29 CFR 1910.1200) Hazard Class(es)
Irritant. Sensitizer.

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification:
Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level:
None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)
This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

WHMIS Hazard Classification

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Toxic Material Causing Other Toxic Effects

16. OTHER INFORMATION

HMIS Rating

Health	:	2
Flammability	:	1
Physical hazard	:	0

Prepared by : Air Products and Chemicals, Inc. Global EH&S Product Safety Department

For additional information, please visit our Product Stewardship web site at
<http://www.airproducts.com/productstewardship/>
