

MATERIAL SAFETY DATA SHEET

VVO ADAPHAX 759 POLYURETHANE FINE GROUND

Version Number 1.0
Revision Date 10/31/2002

Page 1 of 7
Print Date 11/13/2002

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
33587 Walker Road, Avon Lake, OH 44012

NON-EMERGENCY TELEPHONE : Product Stewardship (440)-930-1395
Emergency telephone number : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**

Product name : VVO ADAPHAX 759 POLYURETHANE FINE GROUND
 Product code : AD00001853X8
 Chemical Name : Mixture
 CAS-No. : Mixture
 Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Components	CAS-No.	Weight %
Toluene 2,6-diisocyanate	91-08-7	1 - 5
2,4-Toluene diisocyanate, 2,4-TDI	584-84-9	10 - 30

3. HAZARDS IDENTIFICATION
EMERGENCY OVERVIEW

This product has not been evaluated as a whole for health effects. Some vapors may be released upon heating or processing. The end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Skin contact

Acute exposure

Inhalation : At process temperatures, product emissions may cause irritation.
 Ingestion : May be harmful if swallowed.
 Eyes : At process temperatures, product emissions may cause irritation.
 Skin : Experience shows no unusual dermatitis hazard from routine handling.

Chronic exposure : Refer to Section 11 for Toxicological Information.

Medical Conditions : None known.
Aggravated by Exposure:

4. FIRST AID MEASURES

MATERIAL SAFETY DATA SHEET

VVO ADAPHAX 759 POLYURETHANE FINE GROUND

Version Number 1.0

Page 2 of 7

Revision Date 10/31/2002

Print Date 11/13/2002

- Inhalation : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.
- Ingestion : Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.
- Eyes : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.
- Skin : Wash off with soap and plenty of water. If skin irritation persists seek medical attention.

5. FIRE-FIGHTING MEASURES

- Flash point : Not applicable
- Flammable Limits
 Upper explosion limit : Not applicable
 Lower explosion limit : Not applicable
 Autoignition temperature : Not relevant
 Suitable extinguishing media : water, dry powder, foam, carbon dioxide (CO₂).
- Special Fire Fighting Procedures : Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
- Unusual Fire/Explosion Hazards : None

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
- Environmental precautions : Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.
- Methods for cleaning up : Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal. Refer to Section 13 of this MSDS for proper disposal methods.

7. HANDLING AND STORAGE

- Handling : No special precautions required
- Storage : Keep in a dry, cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

MATERIAL SAFETY DATA SHEET

VVO ADAPHAX 759 POLYURETHANE FINE GROUND

Version Number 1.0

Page 3 of 7

Revision Date 10/31/2002

Print Date 11/13/2002

- Respiratory protection : No personal respiratory protective equipment normally required.
- Eye/Face Protection : Safety glasses with side-shields.
- Hand protection : Protective gloves.
- Skin and body protection : Long sleeved clothing.
- Additional Protective Measures : Safety shoes.
- General Hygiene Considerations : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
- Engineering measures : Heat only in areas with appropriate exhaust ventilation.

Exposure limit(s)

Components	Value	Exposure time	Exposure type	List:
2,4-Toluene diisocyanate, 2,4-TDI	0.005 ppm	Time Weighted Average (TWA):	as TDI	ACGIH
	0.02 ppm	Short Term Exposure Limit (STEL):	as TDI	ACGIH
2,4-Toluene diisocyanate, 2,4-TDI	0.02 ppm 0.14 mg/m3	Ceiling Limit Value:	as TDI	OSHA Z1

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : Solid
- Appearance : Crumb, bales
- Color : NO PIGMENT
- Odor : Characteristic rubber odor
- Melting point/range : Not determined
- Boiling Point: : Not applicable
- Water solubility : Insoluble
- Evaporation rate : Not applicable.
- Specific Gravity : Not determined
- Bulk density : Not established
- Vapor pressure : Not applicable
- Vapor density : Not applicable
- pH : Not applicable

10. STABILITY AND REACTIVITY

- Stability : Stable.
- Hazardous Polymerization : Will not occur.
- Conditions to avoid : None known.
- Incompatible Materials : strong acids and oxidizing agents alkali metals
- Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

MATERIAL SAFETY DATA SHEET

VVO ADAPHAX 759 POLYURETHANE FINE GROUND

Version Number 1.0

Page 4 of 7

Revision Date 10/31/2002

Print Date 11/13/2002

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
91-08-7	Toluene 2,6-diisocyanate	Irritant	Eyes, Skin, Respiratory system.
		sensitizer	Skin, Respiratory system.
		toxic	Refer to LC50 / LD50 Data on MSDS..
584-84-9	2,4-Toluene diisocyanate, 2,4-TDI	Irritant	Eyes, Skin, Respiratory system.
		sensitizer	Skin, Respiratory system.
		Systemic effects	Respiratory system, central nervous system.
		Highly Toxic	Refer to LC50 / LD50 Data on MSDS..

LC50 / LD50

This product contains the following components which in their pure form have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
91-08-7	Toluene 2,6-diisocyanate	Oral LD50	100 mg/kg	Bobwhite quail
584-84-9	2,4-Toluene diisocyanate, 2,4-TDI	LC50	10 ppm	mouse
		Oral LD50	5,800 mg/kg	rat

Carcinogenicity:

This product contains the following components which in their pure form have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
91-08-7	Toluene 2,6-diisocyanate	no	2B	2
584-84-9	2,4-Toluene diisocyanate, 2,4-TDI	no	2B	2

IARC Carcinogen Classifications:

- 1 - The component is carcinogenic to humans.
- 2A - The component is probably carcinogenic to humans.
- 2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

- 1 - The component is known to be a human carcinogen.
- 2 - The component is reasonably anticipated to be a human carcinogen.

Additional Health Hazard Information:

MATERIAL SAFETY DATA SHEET

VVO ADAPHAX 759 POLYURETHANE FINE GROUND

Version Number 1.0

Page 5 of 7

Revision Date 10/31/2002

Print Date 11/13/2002

Toluene 2,6-diisocyanate 91-08-7 Isocyanates in general are irritants to the skin, eyes, and respiratory system. Isocyanates are skin and respiratory sensitizers. Exposure can result in an asthma-like condition or skin rashes. Sensitized individuals should be kept from exposure to unreacted isocyanates.

Additional Health Hazard Information:

2,4-Toluene diisocyanate, 2,4-TDI 584-84-9 Isocyanates in general are irritants to the skin, eyes, and respiratory system. Isocyanates are skin and respiratory sensitizers. Exposure can result in an asthma-like condition or skin rashes. Sensitized individuals should be kept from exposure to unreacted isocyanates.

12. ECOLOGICAL INFORMATION

Persistence and degradability : Not readily biodegradable.

Environmental Toxicity : No data available.

Bioaccumulation Potential : No data available.

Additional advice : Not applicable

13. DISPOSAL CONSIDERATIONS

Product : Where possible, recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

Contaminated packaging : Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

14. TRANSPORT INFORMATION

U.S. DOT Classification : Not regulated for transportation.

ICAO/IATA : Not regulated for transportation.

IMO / IMDG : Not regulated for transportation.

15. REGULATORY INFORMATION

US Regulations:

OSHA Status : Classified as hazardous based on components.

TSCA Status : All components of this product are listed on the TSCA inventory or are exempt.

MATERIAL SAFETY DATA SHEET

VVO ADAPHAX 759 POLYURETHANE FINE GROUND

Version Number 1.0

Page 6 of 7

Revision Date 10/31/2002

Print Date 11/13/2002

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	% in Product	RQ for component	RQ for Mixture/Product
2,4-Toluene diisocyanate, 2,4-TDI	584-84-9	12.0720	100 lbs	828 LB

California Proposition : WARNING! This product contains a chemical known to the State of 65 California to cause cancer.

SARA Title III Section 302 Extremely Hazardous Substance

Chemical Name	CAS-No.	% in Product	RQ for component
2,4-Toluene diisocyanate, 2,4-TDI Toluene 2,6-diisocyanate	584-84-991-08-7	12.073.01	100 lbs 100 lbs

SARA Title III Section 313 Toxic Chemicals:

Chemical Name	CAS-No.	Weight %
TOLUENE 2,4-DIISOCYANATE	584-84-9	12.07
TOLUENE-2,4-DIISOCYANATE		
TOLUENE 2,6-DIISOCYANATE	91-08-7	03.01
TOLUENE 2,6-DIISOCYANATE		

Canadian Regulations:

WHMIS Classification : D1A

WHMIS Ingredient Disclosure List

CAS-No.
8001-79-4
584-84-9
91-08-7

DSL : Listed.

National Inventories:

Australia AICS : Listed.

China IECS : Listed.

Europe EINECS : Listed.

POLYONE CORPORATION



MATERIAL SAFETY DATA SHEET

VVO ADAPHAX 759 POLYURETHANE FINE GROUND

Version Number 1.0

Page 7 of 7

Revision Date 10/31/2002

Print Date 11/13/2002

Japan ENCS : Not determined.

Korea KECI : Listed.

Philippines PICCS : Listed.

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.