

MATERIAL SAFETY DATA SHEET POLYBOUND® 304 TMTD-80

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| 1. PRODUCT AND COMPANY IDENTIFICATION HEXPOL Compounding 14330 Kinsman Road, Burton, OH 44021 | | | | | |
|---|---|-------------------------|--|--|--|
| | | | | | |
| Product name | : | POLYBOUND® 304 TMTD-80 | | | |
| Product code | : | AD0000045160 | | | |
| Chemical Name | : | Mixture | | | |
| CAS-No. | : | Mixture | | | |
| Product Use | : | Industrial Applications | | | |

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight percent |
|--|-------------|----------------|
| Petroleum distillates, hydrotreated light naphthenic | 64742-53-6 | 1 - 5 |
| Silica, amorphous, precipitated and gel | 112926-00-8 | 1 - 5 |
| Petroleum distillates, hydrotreated heavy naphthenic | 64742-52-5 | 10 - 30 |
| Tetramethyl thiuram disulfide (Thiram) | 137-26-8 | 60 - 100 |

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and 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: | : Inhalation, Ingestion, Skin contact |
|---------------------|---|
| Acute exposure | |
| Inhalation | : Resin particles, like other inert materials, can be mechanically irritating. |
| Ingestion | : May be harmful if swallowed. |
| Eyes | : Resin particles, like other inert materials, are mechanically irritating to eyes. |
| Skin | : Experience shows no unusual dermatitis hazard from routine handling. |



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| Medical Conditions | : None known. |
|--|--|
| Aggravated by Exposure: | |
| | 4. FIRST AID MEASURES |
| Inhalation | : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases o 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 Lower explosion limit Autoignition temperature Suitable extinguishing media | not applicable not applicable Not relevant Water spray, Dry powder, Foam, Carbon dioxide (CO2). |
| Special Fire Fighting Procedures Unusual Fire/Explosion Hazards | Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. |
| | 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 |



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| Handling | : Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation. | | | |
|-----------------------------------|---|--|--|--|
| Storage | : | Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place. | | |
| 8. EXI | POSU | RE CONTROLS/PERSONAL PROTECTION | | |
| Respiratory protection | : | No personal respiratory protective equipment normally required when handling the product itself. See "Engineering Measures" section below for precautions to be taken when heating or processing this material. | | |
| 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. Adequate ventilation and/or appropriate respiratory protection may also be necessary to minimize employee exposure to processing vapors. | | |
| Exposure limit(s) | | | | |
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| Components | Value | Exposure time | Exposure type | List: |
|--|------------------|-----------------------------------|------------------------------|----------|
| Petroleum distillates, hydrotreated heavy | 500 ppm 2,000 | PEL: | | OSHA Z1 |
| naphthenic | mg/m3 | | | |
| Petroleum distillates, | 500 ppm | PEL: | | OSHA Z1 |
| hydrotreated light naphthenic | 2,000 mg/m3 | | | |
| | 5 mg/m3 | Time Weighted Average (TWA): | Mist. | ACGIH |
| Silica, amorphous, precipitated and gel | 6 mg/m3 | Time Weighted Average (TWA): | | OSHA Z1A |
| | 10 mg/m3 | Time Weighted Average (TWA): | | MX OEL |
| Tetramethyl thiuram disulfide (Thiram) | 0.05 mg/m3 | Time Weighted Average (TWA): | Inhalable fraction and vapor | ACGIH |
| | 5 mg/m3 | Recommended exposure limit (REL): | | NIOSH |
| | 5 mg/m3 | PEL: | | OSHA Z1 |
| | 5 mg/m3 | Time Weighted Average (TWA): | | OSHA Z1A |
| | 1 mg/m3 | Time Weighted Average (TWA): | | MX OEL |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Form Appearance Color Odour Melting point/range Boiling Point: Water solubility | : | Solid Crumb NO PIGMENT Characteristic rubber odor Not determined not applicable Insoluble | Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH | ::::::::::::::::::::::::::::::::::::::: | Not applicable Not determined Not established not applicable not applicable not applicable |
|---|---|---|---|---|---|
| | | 10. STABILITY AND RE | CACTIVITY | | |

| Stability | : | Stable. |
|----------------------------------|---|--|
| Hazardous Polymerization | : | Will not occur. |
| Conditions to avoid | : | Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat. |
| Incompatible Materials | : | Incompatible with strong acids and oxidizing agents. |
| Hazardous decomposition products | : | Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. |

11. TOXICOLOGICAL INFORMATION



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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 |
|-------------|--|------------------|--|
| 64742-53-6 | Petroleum distillates, hydrotreated light naphthenic | Irritant | Eyes, Skin. |
| 112926-00-8 | Silica, amorphous, precipitated and gel | Irritant | Respiratory system, Eyes. |
| 64742-52-5 | Petroleum distillates, hydrotreated heavy naphthenic | Irritant | Eyes, Skin. |
| 137-26-8 | Tetramethyl thiuram disulfide (Thiram) | Irritant | Eyes, Skin, Respiratory system. |
| | | sensitizer | Eyes, Skin, Respiratory system. |
| | | Systemic effects | Liver, Kidney, central nervous system (CNS). |
| | | 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 |
|----------|---------------------|-------------|-------------|---------|
| 137-26-8 | Tetramethyl thiuram | LC50 | 500 mg/m3 | rat |
| | disulfide (Thiram) | Oral LD50 | 210 mg/kg | rabbit |
| | | Dermal LD50 | 2,000 mg/kg | rat |

| | 12. ECOLOGICAL INFORMATION |
|-------------------------------|---|
| Persistence and degradability | : Not readily biodegradable. |
| Environmental Toxicity | : Chemicals are not readily available as they are bound within the polymer matrix. |
| Bioaccumulation Potential | : Chemicals are not readily available as they are bound within the polymer matrix. |
| 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. |



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| Contaminated packaging | materi transp | ling is preferred when po al has the responsibility ortation and disposal in a provincial and local regul | for proper waste classif accordance with applica | ication, |
| | 14. TRA | NSPORT INFORMAT | TION | |
| U.S. DOT Classification Proper Shipping Name: Technical Name: Hazard Class / Division | Environmo 9 | entally hazardous substar | nces, solid, n.o.s. | |
| UN Number Packing Group | UN3077 III | | | |
| Label Required Hazardous Substance | 9 Thiram | | | |
| Reportable quantity: | 13 LB | | | |
| ICAO/IATA (air) | Refer to sp | pecific regulation. | | |
| IMO / IMDG (maritime) | Refer to sp | pecific regulation. | | |
| | 15. REG | ULATORY INFORMA | TION | |
| US Regulations: | | | | |
| OSHA Status | : Classi | fied as hazardous based | on components. | |
| TSCA Status | | omponents of this produc Inventory. | et are listed on or exemp | ot from the |
| US. EPA CERCLA Hazard | lous Substances | (40 CFR 302) | | |
| Chemical Name | CAS-No. | RQ for component | RQ for Mixture/Product | |
| Tetramethyl thiuram disulfide (Thiram) | 137-26-8 | 010 lbs | 13 LB | |
| | | | | |
| California Proposit | ion : Not ap | oplicable | | |



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SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

| Chemical Name CA | CAS-No. | Weight percent |
|------------------|---------|----------------|
| THIRAMTHIRAM 137 | 37-26-8 | 60.00 - 100.00 |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

not applicable

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

| CAS-No. | |
|----------|--|
| 137-26-8 | |
| | |

DSL

: All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

| Australia AICS | : Listed |
|-------------------|------------------|
| China IECS | : Listed |
| Europe EINECS | : Listed |
| 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.