

Section 1 Identification

Product identifiers

Product name: Freeman T-60 Thixo Additive

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Additive for castings. For Industrial/Professional Use Only.

Details of the supplier of the safety data sheet

Freeman Manufacturing and Supply Company

1101 Moore Road, Avon, OH 44011

Phone: (440) 934-1902

E-mail: contactus@freemansupply.com

**24 Hour emergency telephone number:
CHEMTREC (800) 424-9300**

Section 2 Hazard Identification

GHS Classification in Accordance with 29 CFR 1910.1200 (OSHA HCS)

Acute Toxicity (inhalation) – Category 4

Skin Irritation – Category 2

Eye Irritation – Category 2B

Respiratory Sensitizer – Category 1

Skin Sensitizer – Category 1

Specific Target Organ Toxicity – Single Exposure Category 3

Specific Target Organ Toxicity – Repeated Exposure Category 2

Label Elements



Danger

Hazard Statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

P260 Do not breathe fumes, vapors, mists or sprays.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves, protective clothing, eye protection and face protection.

P284 In case of inadequate ventilation, wear respiratory protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P317 Get medical help.

Section 2 Hazard Identification continued

P319 Get medical help if you feel unwell.
 P333+P317: If skin irritation or rash occurs: Get medical help.
 P337+P317: If eye irritation persists: Get medical help.
 P342+P316: If experiencing respiratory symptoms: Get emergency medical help immediately.
 P362+P364: Take off contaminated clothing and wash it before reuse.
 P403+P233: Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents and container in accordance with local, regional, and national regulations.

Section 3 Composition/Information on Ingredients

Chemical Name	CAS Number	Concentration (%)
Methylene diphenyl diisocyanate (MDI)	26447-40-5	90 - 100

Other ingredients are not listed because they are either not hazardous or are below cut-off / concentration thresholds.

Section 4 First Aid Measures

Eye Contact: Rinse thoroughly with water, holding the eyelids open to be sure the material is washed out. Remove contact lenses if safe and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

Skin Contact: Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation develops or persists.

Inhalation: Remove person to fresh air. Get medical attention immediately.

Ingestion: Do not induce vomiting unless instructed to do so by a medical professional. Get medical attention if you feel unwell.

Most Important Symptoms/Effects: Harmful if inhaled.

Indication of Immediate Medical Attention/Special Treatment: Get immediate medical attention if inhaled.

Section 5 Fire-Fighting Measures

Extinguishing Media

Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or spread fire.

Specific Hazards

Not classified as flammable or combustible. Product will burn under fire conditions. Combustion products include oxides of carbon, phenolics, aldehydes and other toxic organic compounds.

Special Protective Equipment & Precautions for Fire-Fighters

Wear positive pressure, self-contained breathing apparatus, and full-body protective clothing.

Section 6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Clear unnecessary, unprotected personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing vapors.

Methods and Materials for Containment and Cleanup

Cover with an inert absorbent material and collect into an appropriate container for disposal. Avoid releases to the environment.

Section 7 Handling and Storage

Safe Handling

Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke in the work area. Keep container closed when not in use.

Safe Storage

Store indoors at temperatures below 120°F (49°C). Store in original containers. Avoid getting moisture into containers. Keep containers tightly closed. Store locked up.

Section 8 Exposure Controls/Personal Protection

Occupational Exposure Limits

None established.

Appropriate Engineering Controls

Use with adequate general or local exhaust ventilation to minimize exposure levels.

Personal Protective Equipment (PPE)

Respiratory Protection: If needed, an approved respirator with organic vapor cartridges may be used. Respirator selection and use should be based on contaminant type, form, and concentration. For higher exposures or in an emergency, use a supplied-air respirator. Use respirators in accordance with OSHA's Respiratory Protection Standard (29 CFR 1910.134).

Skin Protection: Wear impervious gloves, such as butyl rubber or nitrile rubber.

Eye Protection: Wear chemical safety glasses/goggles.

Safety Stations

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

General Hygienic Practices

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

Section 9 Physical and Chemical Properties

Appearance	Liquid
Odor	Pungent
Odor threshold	No data available
pH	No data available
Melting or freezing point	No data available
Boiling point	No data available

Section 9 Physical and Chemical Properties continued

Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Flammability limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density (g/cc)	No data available
Water solubility	Nil to slightly soluble
Coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

Section 10 Stability and Reactivity

Reactivity:	Not normally reactive.
Chemical Stability:	Stable under recommended conditions.
Possibility of Hazardous Reactions:	Masses of ≥1 lb. (0.5 kg) plus aliphatic amine will cause irreversible polymerization with considerable heat build-up. Material will polymerize with sodium hydroxide.
Conditions to Avoid:	Avoid excessive heat.
Incompatible Materials:	Avoid contact with strong acids, bases, oxidizing agents, and amines.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide, and oxides of nitrogen.

Section 11 Toxicological Information

Eye Contact:	Causes serious eye irritation.
Skin Contact:	Causes skin irritation. May cause an allergic skin reaction.
Inhalation:	Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Ingestion:	No data available.
Chronic Health Effects:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Acute Toxicity Values:	For MDI (CAS 26447-40-5): Inhalation LC50 (rat): 2.24 mg/L, 4hr
Respiratory Sensitization:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sensitization:	May cause an allergic skin reaction.
Germ Cell Mutagenicity:	Components are not classified as mutagens.
Carcinogenicity:	Components are not classified as carcinogens.
Reproductive Toxicity:	Components are not classified as reproductive toxins.
Specific Target Organ Toxicity:	May cause respiratory irritation, drowsiness, or dizziness. May cause damage to organs through prolonged or repeated exposure.

Section 12 Ecological Information

Ecotoxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available

Section 13 Disposal Considerations

Do not dispose of waste into sewer. Do not contaminate waterways. Contact a licensed contractor for detailed recommendations. Follow applicable federal, state, and local regulations.

Section 14 Transport Information

DOT/TDG/IMDG/IATA	Not regulated
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Section 15 Regulatory Information

US Federal Regulations

CERCLA 103 Reportable Quantity: This product is not subject to reporting under CERCLA. Some states have more stringent reporting requirements.

SARA TITLE III

Section 311/312: Acute/Chronic Health Hazard

Section 313 Toxic Chemicals: This product contains chemicals subject to SARA Title III Section 313 reporting requirements:

4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8) 55-65%

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All components in this product are listed on TSCA.

US State Regulations

California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer and/or reproductive harm. www.P65Warnings.ca.gov

Section 16 Other Information

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