Carlisle TyrFil **Safety Data Sheet**

1. Identification of Substance:

Product Name: TyrFil 360 Flex Catalyst component

Supplier Identification:

Telephone: Carlisle TyrFil (440) 260-9830

Address:

24-Hr. Emergency Phone Number: 140 Sheldon Road CHEMTREC (800) 424-9300 Berea, OH 44017 INTERNATIONAL: +1-(703) 527-3887

Product Use: Polyurethane polyol component

2. Hazards Identification:

GHS Ratings:

Eye corrosive 2B Mild eye irritant: Subcategory 2B, Reversible in 7 days

Skin sensitizer Skin sensitizer

GHS Hazards

May cause an allergic skin reaction H317

H320 Causes eye irritation

GHS Precautions

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P264 Wash hands thoroughly after handling

P272 Contaminated work clothing should not be allowed out of the workplace Wear protective gloves/protective clothing/eye protection/face protection P280

P321 Specific treatment is urgent (see Section 4 First Aid measures)

P363 Wash contaminated clothing before reuse IF ON SKIN: Wash with soap and water P302+P352

P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact

lenses if present and easy to do - continue rinsing

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention

P337+P313 Get medical advice/attention

P501 Dispose of contents/container in accordance with existing federal, state, and local

environmental control laws.

Signal Word: Warning



Acute Toxicity:

Eyes: Irritating to eyes. **Skin:** Irritating to skin.

Inhalation: Not expected to be a route of exposure.

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Ingestion: Consult physician.

Conditions Aggravated by Exposure: None known. Chronic Effects: Possible harmful target organ effects.

3. Composition/Data on Components:

Chemical Name	CAS number	Weight Concentration %
1,4-Butanediol	110-63-4	1.00% - 5.00%
1,4-Diazabicyclo[2.2.2]octane	280-57-9	0.10% - 1.00%
2-(Dimethylamino)ethanol	108-01-0	0.10% - 1.00%

4. First Aid Measures:

Inhalation: Move to fresh air. If breathing is difficult, give oxygen.

After Eye Contact: Rinse opened eye for at least 15 minutes under running water.

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

After Skin Contact: Clean affected area with soap and plenty of water.

After Swallowing: Consult physician.

Notes to Physician: Treat symptomatically

5. Fire Fighting Measures:

Flash Point: 200 C (392 F)

LEL: N/A UEL: N/A

Upper and lower explosive limits listed if known

Suitable Extinguishing Agents: Water spray, CO2, Foam, Dry chemical

Information about Protection against Explosions and Fires: Closed containers may rupture when

exposed to extreme heat.

Dangerous Products of Decomposition: Oxides of carbon, oxides of nitrogen, hydrocarbons.

Protective Equipment: Firefighters should wear a pressure demand self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures:

Person-Related Safety Precautions: Avoid contact with skin and eyes.

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Measures for Environmental Protection: Cover and contain spill with absorbent material. Collect for proper disposal according to local, state, and federal regulations.

Small Spills: Absorb with earth, sand or other absorbent material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece) clean surface thoroughly to remove residual contamination.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use an absorbent material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

7. Handling and Storage:

Information for Safe Handling: Avoid contact with skin or inhalation.

Storage Requirements: Store in dry, well ventilated area. Keep containers tightly closed. Store between 60°F-100°F. Material may settle.

Regulatory Requirements: Store according to all local, state, and federal regulations

8. Exposure Controls and Personal Protection:

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
1,4-Butanediol 110-63-4	Not Established	Not Established	Not Established
1,4-Diazabicyclo[2.2.2]octane 280-57-9	Not Established	Not Established	Not Established
2-(Dimethylamino)ethanol 108-01-0	Not Established	Not Established	Not Established

Engineering Controls: No specific measures required if proper PPE precautions are followed.

General Protective and Hygienic Measures: Usual precautionary measures should be adhered to when handling chemicals.

Respiratory Protection: None required if work area is properly ventilated.

Protection of Hands: Protective chemical resistant gloves.

Eye Protection: Safety glasses.

Body Protection: Protective work clothing. Launder separately.

Contaminated Gear: Observe local requirements. Dispose of in accordance with local/state/federal regulations.

9. Physical and Chemical Properties:

Physical properties listed where known.

Appearance: Clear yellow liquid	Odor: Mild	
Vapor Pressure: N/A	Odor threshold: N/A	
Vapor Density: N/A	pH: N/A	
Specific Gravity 1.06	Melting point: N/A	

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Freezing point: N/A

Boiling range: 100 - 313°C

Evaporation rate: N/A Explosive Limits: N/A

Autoignition temperature: 385°C

Solubility: N/A

Flash point: 392°F,200°C

Flammability: N/A
Partition coefficient N/A
(n-octanol/water):

Decomposition temperature: N/A

10. Stability and Reactivity:

Incompatible Materials: Avoid contact with isocyanates and strong oxidizing agents.

Hazardous Polymerization: Not expected to occur.

Dangerous Products of Decomposition: Oxides of carbon, oxides of nitrogen, hydrocarbons.

11. Toxicological Information:

Mixture Toxicity Component Toxicity

280-57-9 1,4-Diazabicyclo[2.2.2]octane

Oral LD50: 1,700 mg/kg (Rat) Dermal LD50: 3,200 mg/kg (Rabbit)

108-01-0 2-(Dimethylamino)ethanol

Oral LD50: 1,803 mg/kg (Rat) Dermal LD50: 3,000 mg/kg (Rabbit) Inhalation LC50: 1,641 ppm

Toxicity Values Listed if Known

Acute Toxicity:

Eyes: Irritating to eyes. **Skin:** Irritating to skin.

Inhalation: Not expected to be a route of exposure.

Ingestion: Consult physician.

Chronic Effects: Possible harmful target organ effects.

Routes of Entry: Eye contact, skin contact.

Target Organs: Possible harmful target organ effects.

Chemicals with Known or Possible Carcinogenic Effects:

<u>CAS Number</u> <u>Description</u> <u>% Weight</u> <u>Carcinogen Rating</u>

None None

12. Ecological Information:

General Information: Based on experience, no adverse effects are to be expected if correct disposal procedures have been followed as indicated in section 13. Individual component ecotoxicity listed if known.

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Component Ecotoxicity

1,4-Butanediol 48 Hr EC50 Daphnia magna: 813 mg/L

72 Hr EC50 Desmodesmus subspicatus: >500 mg/L

1,4-Diazabicyclo[2.2.2]octane 96 Hr LC50 Pimephales promelas: 1510 - 1980 mg/L [flow-through]

2-(Dimethylamino)ethanol 96 Hr LC50 Pimephales promelas: 81 mg/L [static]

48 Hr EC50 Daphnia magna: 98.77 mg/L

72 Hr EC50 Desmodesmus subspicatus: 35 mg/L

13. Disposal Considerations:

Recommendation: Observe local requirements. Dispose of in accordance with local/state/federal regulations.

Empty Container Precautions: Empty containers retain product residue; observe all precautions for product. Do not heat or cut empty container with electric or gas torch because highly toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed and container is empty prior to disposal. Contact the Reusable Industrial Packaging Association (RIPA) at 301-577-3786 to find a drum re-conditioner in North America (www.reusablepackaging.org).

14. Transport Information:

DOT Regulated Components:

This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods unless specifically cited below:

Agency Proper Shipping Name

UN Number Packing Group Hazard Class

None

15. Regulatory Information:

OSHA HAZARD COMMUNICATION STANDARD: This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

SARA 311/312 Hazard Categories: Acute health hazard, chronic health hazard.

California Proposition 65

(Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute unless otherwise listed:

WARNING: This product can expose you to chemicals listed below, which are known to the State of California to cause cancer, birth defects, or reproductive harm. For more information, visit www.P65Warnings.ca.gov

- None

Massachusetts Right To Know List:

- None

New Jersey Right To Know List:

- None

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Pennsylvania Right To Know List:

- None

SARA 302 Extremely Hazardous Substances:

- None

Chemicals subject to SARA 313 Reporting:

- None

Country Regulation All Components Listed

Canada Canada DSL Yes
US Toxic Substances Control Act Yes

16. Other Information:

Safety Data Sheet issued by Product Safety Department

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Date revised: 2020-01-16 Reviewer Revision 0

Date Prepared: 1/16/2020

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