



Carlisle Roof Foam and Coatings Safety Data Sheet

1. Identification of Substance:

Product Name: ROOFTITE 60 HFO SERIES

Supplier Identification:

Carlisle Roof Foam and Coatings

Telephone:

(770) 607-0755

Address:

100 Enterprise Dr.
Cartersville, GA 30120

24-Hr. Emergency Phone Number:

CHEMTREC (800) 424-9300
INTERNATIONAL: +1-(703) 527-3887

Product Use: Polyurethane polyol component

2. Hazards Identification:

GHS Ratings:

| | | |
|-------------------------------|---|---|
| Skin corrosive | 2 | Reversible adverse effects in dermal tissue, Draize score: $\geq 2.3 < 4.0$ or persistent inflammation |
| Eye corrosive | 1 | Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity ≥ 3 , Iritis > 1.5 |
| Skin sensitizer | 1 | Skin sensitizer |
| Organ toxin repeated exposure | 2 | Presumed to be harmful to human health- Animal studies with significant toxic effects relevant to humans at generally moderate exposure (guidance)- Human evidence in exceptional cases |

GHS Hazards

| | |
|------|---|
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H318 | Causes serious eye damage |
| H373 | May cause damage to organs through prolonged or repeated exposure |

GHS Precautions

| | |
|----------------|---|
| P260 | Do not breathe dust/fume/gas/mist/vapors/spray |
| 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 |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection |
| P310 | Immediately call a POISON CENTER in case of overexposure. |
| P314 | Get Medical advice/attention if you feel unwell |
| P321 | Specific treatment is urgent (see Section 4 First Aid measures) |
| P362 | Take off contaminated clothing and wash before reuse |
| P363 | Wash contaminated clothing before reuse |
| P302+P352 | IF ON SKIN: Wash with soap and water |
| P305+P351+P338 | IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing |
| P332+P313 | If skin irritation occurs: Get medical advice/attention |
| P333+P313 | If skin irritation or a rash occurs: Get medical advice/attention |

Signal Word: Danger**Acute Toxicity:****Eyes:** Corrosive to eyes.**Skin:** Irritating to skin.**Inhalation:** Not expected to be a route of exposure.**Ingestion:** Harmful if swallowed. Consult physician.**Chronic Effects:** Possible harmful target organ effects**3. Composition/Data on Components:**

| Chemical Name | CAS number | Weight Concentration % |
|---|-------------|------------------------|
| Oxirane, 2-methyl-, polymer with oxirane, ether with 2,6-bis[[bis(2-hydroxyethyl)amino]methyl]-4-branched | 940912-28-7 | 20.00% - 30.00% |
| 2-Propanol, 1-chloro-, phosphate (3:1) | 13674-84-5 | 5.00% - 10.00% |
| cis-1,1,1,4,4,4-Hexafluoro-2-butene | 692-49-9 | 5.00% - 10.00% |
| 2-(Dimethylamino)ethanol | 108-01-0 | 1.00% - 5.00% |
| Glycerin | 56-81-5 | 1.00% - 5.00% |
| Triethyl phosphate | 78-40-0 | 1.00% - 5.00% |
| Diethylene glycol | 111-46-6 | 1.00% - 5.00% |
| 1,3-Propanediamine, N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethyl- | 33329-35-0 | 1.00% - 5.00% |

4. First Aid Measures:**Inhalation:** If inhaled and symptoms ensue, 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. If irritation persists contact physician**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°F, 93°C

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: Keep away from flames and sources of heat. Closed containers may rupture when exposed to extreme heat.

Dangerous Products of Decomposition: Oxides of carbon, oxides of nitrogen, oxides of phosphorus, hydrocarbons, traces of HCN, hydrogen chloride gas, hydrogen fluoride.

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

6. Accidental Release Measures:

Person-Related Safety Precautions: Use appropriate personal protective equipment during clean up. Evacuate and keep unnecessary people out of spill area. Avoid contact with skin and eyes.

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 non-combustible 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 a non-combustible 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 eyes, skin, or inhalation.

Storage Requirements: Store in dry, well ventilated area. Keep containers tightly closed. Store between 40°F-80°F. Material may settle.

Regulatory Requirements: Obey all local, state, and federal requirements.

8. Exposure Controls and Personal Protection:

| Chemical Name / CAS No. | OSHA Exposure Limits | ACGIH Exposure Limits | Other Exposure Limits |
|-------------------------|----------------------|-----------------------|-----------------------|
|-------------------------|----------------------|-----------------------|-----------------------|

| | | | |
|--|---|-----------------|-----------------|
| Oxirane, 2-methyl-, polymer with oxirane, ether with 2,6-bis[[bis(2-hydroxyethyl)amino]methyl]-4-branched nonylphenol 940912-28-7 | Not Established | Not Established | Not Established |
| 2-Propanol, 1-chloro-, phosphate (3:1) 13674-84-5 | Not Established | Not Established | Not Established |
| cis-1,1,1,4,4,4-Hexafluoro-2-butene 692-49-9 | Not Established | Not Established | Not Established |
| 2-(Dimethylamino)ethanol 108-01-0 | Not Established | Not Established | Not Established |
| Glycerin 56-81-5 | 15 mg/m3 TWA (mist, total particulate); 5 mg/m3 TWA (mist, respirable fraction) | Not Established | Not Established |
| Triethyl phosphate 78-40-0 | Not Established | Not Established | Not Established |
| Diethylene glycol 111-46-6 | Not Established | Not Established | Not Established |
| 1,3-Propanediamine, N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethyl- 33329-35-0 | 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: In spray applications, an organic vapor/particulate respirator or air supplied unit is necessary.

Protection of Hands: Protective chemical resistant gloves.

Eye Protection: Chemical resistant goggles must be worn.

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.

| | |
|--|--|
| <p>Appearance: Amber liquid</p> <p>Vapor Pressure: N/A</p> <p>Vapor Density: N/A</p> <p>Specific Gravity: 1.13</p> <p>Freezing point: N/A</p> <p>Boiling range: 92 - 342°C</p> <p>Evaporation rate: N/A</p> | <p>Odor: Amine odor</p> <p>Odor threshold: N/A</p> <p>pH: N/A</p> <p>Melting point: N/A</p> <p>Solubility: N/A</p> <p>Flash point: >200°F, 93°C</p> <p>Flammability: N/A</p> |
|--|--|

| | |
|---------------------------------|---|
| Explosive Limits: N/A | Partition coefficient N/A (n-octanol/water): |
| Autoignition temperature: 229°C | Decomposition temperature: N/A |

10. Stability and Reactivity:

Chemical 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, oxides of phosphorus, hydrocarbons, traces of HCN, hydrogen chloride gas, hydrogen fluoride

11. Toxicological Information:

Mixture Toxicity

Oral Toxicity LD50: 2,341mg/kg
Inhalation Toxicity LC50: 31mg/L

Component Toxicity

| | |
|------------|---|
| 13674-84-5 | 2-Propanol, 1-chloro-, phosphate (3:1) Oral LD50: 500 mg/kg (Rat) Dermal LD50: 1,230 mg/kg (Rabbit) Inhalation LC50: 5 mg/L (Rat) |
| 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 (Rat) |
| 111-46-6 | Diethylene glycol Oral LD50: 1,120 mg/kg (Rat) Dermal LD50: 5,000 mg/kg (Rabbit) Inhalation LC50: 5 mg/L (Rat) |
| 33329-35-0 | 1,3-Propanediamine, N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethyl- Dermal LD50: 1,150 mg/kg (Rabbit) Inhalation LC50: 2 mg/L (Rat) |

Individual Toxicity Values Listed if Known

Acute Toxicity:

Eyes: Corrosive to eyes.

Skin: Irritating to skin.

Inhalation: Not expected to be a route of exposure.

Ingestion: Harmful if swallowed. Consult physician.

Chronic Effects: Possible harmful target organ effects.

Routes of Entry: Ingestion, skin contact, eye contact.

Target Organs: Skin, eyes, kidneys

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.

Component Ecotoxicity

| | |
|---|---|
| 2-Propanol, 1-chloro-, phosphate (3:1) | 96 Hr LC50 Brachydanio rerio: 56.2 mg/L [static]; 96 Hr LC50 Pimephales promelas: 98 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 30 mg/L [static] 48 Hr EC50 Daphnia magna: 63 mg/L 72 Hr EC50 Desmodesmus subspicatus: 45 mg/L; 96 Hr EC50 Pseudokirchneriella subcapitata: 4 mg/L |
| cis-1,1,1,4,4,4-Hexafluoro-2-butene | 96 h LC50 Oryzias latipes (Orange-red killifish): 76.1 mg/l OECD Test Guideline 203 72 h ErC50 Pseudokirchneriella subcapitata (green algae): > 23.7 mg/l OECD Test Guideline 201 72 h NOEC Pseudokirchneriella subcapitata: (green algae) 6.92 mg/l 48 h EC50 Daphnia magna (Water flea): 22.5 mg/l OECD Test Guideline 202 21 d NOEC Daphnia magna (Water flea) 10 mg/l OECD Test Guideline 211 |
| 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 |
| Glycerin | 96 Hr LC50 Oncorhynchus mykiss: 51 - 57 mL/L [static] |
| Diethylene glycol | 96 Hr LC50 Pimephales promelas: 75200 mg/L [flow-through] 48 Hr EC50 Daphnia magna: 84000 mg/L |
| 1,3-Propanediamine, N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethyl- | 48 Hr LC50 Orzyias latipes 430 mg/L 48 Hr EC50 Daphnia 48 mg.L |

13. Disposal Considerations:

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

Empty Container Precautions: Recondition or dispose of empty container in accordance with governmental regulations. If container is to be disposed, ensure all product residues are removed and container is empty prior to disposal.

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:

| <u>Agency</u> | <u>Proper Shipping Name</u> | <u>UN Number</u> | <u>Packing Group</u> | <u>Hazard Class</u> |
|---------------|-----------------------------|------------------|----------------------|---------------------|
| | 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.

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

| | | | |
|----------------|----------|---------|------|
| Formaldehyde | 50-00-0 | < 1 PPM | CARC |
| Diethanolamine | 111-42-2 | < 1 PPM | CARC |
| Acetaldehyde | 75-07-0 | 334 PPM | CARC |
| 1,4-Dioxane | 123-91-1 | 334 PPM | CARC |

Massachusetts Right To Know List:

| | | |
|--------------------------|----------|----------|
| Glycerin | 56-81-5 | 1 to 5 % |
| 2-(Dimethylamino)ethanol | 108-01-0 | 1 to 5 % |

New Jersey Right To Know List:

| | | |
|--------------------------|----------|----------|
| Glycerin | 56-81-5 | 1 to 5 % |
| 2-(Dimethylamino)ethanol | 108-01-0 | 1 to 5 % |

Pennsylvania Right To Know List:

| | | |
|--------------------------|----------|----------|
| Diethylene glycol | 111-46-6 | 1 to 5 % |
| Glycerin | 56-81-5 | 1 to 5 % |
| 2-(Dimethylamino)ethanol | 108-01-0 | 1 to 5 % |

SARA 302 Extremely Hazardous Substances:

- None

Chemicals subject to SARA 313 Reporting:

- None

| <u>Country</u> | <u>Regulation</u> | <u>All Components Listed</u> |
|----------------|------------------------------|------------------------------|
| Canada | Canada DSL | Yes |
| US | Toxic Substances Control Act | Yes |

16. Other Information:

Safety Data Sheet issued by Product Safety Department

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Carlisle Roof Foam and Coatings. The data on these sheets relates only to the specific material designated herein. Carlisle Roof Foam and Coatings assumes no legal responsibility for use or reliance upon this data. It is the user's responsibility to ensure that their activities comply with federal, state, or local laws.

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