

**MATERIAL SAFETY DATA SHEET**  
**THERMOFLOC™ 4153**

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**Section I – Chemical Product and Company Identification**

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<b>Product Name:</b>	Thermofloc 4153	<b>Company Identification:</b>
<b>Emergency Contact:</b>	24-hour Emergency Response Number 1-800-535-5053	Thermodyne Engineering, Inc. 2386 Montana Avenue Cincinnati, OH 45211 Phone 513-481-2450

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**Section II – Physical and Chemical Data**

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<b>Physical State:</b>	Liquid
<b>Boiling Point:</b>	>212°F
<b>Appearance/Odor:</b>	Clear to slightly hazy/odorless liquid
<b>Specific Gravity (at 25°C):</b>	>1.2
<b>Solubility in water:</b>	100%
<b>Freezing Point:</b>	<20°F
<b>pH:</b>	2 – 4

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**Section III – Exposure Controls/Personal Protection**

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<b>Engineering Controls:</b>	Eye wash fountains and safety showers must be located close to areas where exposure is possible. A ventilation system of local exhaust is recommended.
<b>Eye Protection:</b>	Chemical splash goggles and face shields should be worn and an eye wash station should be readily available.
<b>Skin Protection:</b>	Wear impervious gloves, clothing and boots, gauntlet and apron to prevent prolonged or repeated exposure. A safety shower should be readily available.
<b>Respiratory Protection:</b>	If exposed to mist in handling, then wear air respirator with full face piece operated in positive pressure mode.

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**Section IV – Fire Fighting Information**

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<b>Flashpoint:</b>	N/A
<b>Flammable Limits:</b>	N/A
<b>Autoignition Temperature:</b>	N/A
<b>Thermal Decomposition Products:</b>	Hydrogen Chloride, aluminum oxides, sulfur dioxide are possible
<b>Unusual fire and explosion hazard:</b>	Toxic gases can be produced from thermal decomposition
<b>Extinguishing Media:</b>	N/A
<b>Firefighting Instructions:</b>	Remove product from fire area if it can be done safely. Use water to keep exposed containers cool. Firefighters should wear protective equipment and self contained breathing apparatus with full face mask operated in positive pressure mode.

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## Section V – Health Hazard Information

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**Primary Entry Routes:** Skin, eye, ingestion. Inhalation if there is exposure to misted product.

### Potential Health Effects

**Eye:** Causes irritation and painful burns of the eye and eyelids upon contact. Symptoms include stinging, redness and tearing.

**Skin:** May cause a skin rash or irritation. Prolonged exposure may cause inflammation of the skin.

**Ingestion:** Irritation of the mouth of stomach. Swallowing in large amounts can be more harmful.

**Inhalation:** Irritating to mucus membranes.

**Chronic Effects:** None known

**Carcinogenicity:** IARC, NTP, and OSHA do not list the active ingredient as a carcinogen.

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## Section VI – First Aid Measures

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**Inhalation:** Remove from exposure, seek medical help if any symptoms occur.

**Eye Contact:** Immediately flush eyes with running water for at least 15 minutes, occasionally lifting upper and lower lids, until no evidence of chemical remains. Seek medical treatment if symptoms occur.

**Skin Contact:** Remove contaminated clothing, wash the affected area with soap and running water until no evidence of chemical remains. Seek medical attention if irritation occurs.

**Ingestion:** DO NOT INDUCE VOMITING. Dilute stomach contents by having victim drink several glasses of water or milk. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

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## Section VII – Hazardous Ingredients

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Component Name:	CAS Number	% wt
polyaluminum hydroxychlorosulfate	1327-41-9	35-55
Water	7732-18-5	45-65

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Component	OSHA PEL/ACGIH TLV
polyaluminum hydroxychlorosulfate	2 mg/m <sup>3</sup> as Al

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## Section VIII – Reactivity Data

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**Stable ?:** Yes

**Hazardous polymerization:** Will not occur

**Incompatibility:** Avoid contact with strong bases such as caustic soda, ammonia, potassium hydroxide and chlorites as the reaction can generate heat, toxic vapors and splatter and boil. Material reacts with aluminum, zinc, nickel, steel, bronze and copper.

**Hazardous Decomposition Products:** Thermal decomposition can yield hydrochloric acid, aluminum oxides, sulfur dioxide.

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## Section IX – Spill and Leak Measures

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**Small Spills:** Soak up with absorbant material or sand. Flush residue with large volumes of water.  
**Larger Spills:** Prevent entry into sewer and confined areas. Dike to contain the spill. Pump into storage containers or neutralize. Neutralization can be accomplished with lime, soda ash or sodium bicarbonate. Neutralization will yield copious amounts of carbon dioxide.  
**Waste Disposal:** Dispose of waster material at an approved waste treatment/disposal facility in accordance with applicable regulations.

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## Section X – Handling and Storage

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**Handling:** Avoid skin and eye contact. Wear the protective equipment discussed in Section III.  
**Storage:** Store in FRP or plastic vessels. Storage temperature should be in the range from 32°F to 90°F. Store away from incompatible substances as discussed in Section VIII.

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## Section XI – Transportation Information

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**DOT Shipping Name:** Corrosive Liquid, Acidic, Inorganic, N.O.S.  
(Polyaluminum hydroxychlorosulfate)  
**DOT Hazard Class:** 8  
**DOT No.:** UN3264  
**Packing Group:** III

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## Section XII – Regulatory Information

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**OSHA Classification:** Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

**SARA Hazard Categories, SARA Section 311/312 (40 CFR 370.21):**

Acute:	No
Chronic:	No
Fire:	No
Reactive:	No
Sudden release:	No

**TSCA Inventory Status:** All the ingredients of this product are listed in the TSCA Inventory.

**National Fire Protection Association Rating:**

Health:	1
Fire:	0
Reactivity:	1

While the information contained herein is believed to be accurate, we make no representations as to its accuracy or sufficiency and we assume no liability whatsoever for its accuracy or completeness. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.