

SAFETY DATA SHEET

Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY INFORMATION:

Turning Star, Inc.
600 Willow Tree Road
Leonia, NJ 07605
Emergency Telephone: Chemtrec
1-800-424-9300

PRODUCT INFORMATION:

Product Name: Flamexx CLS-4
Product Use: Fire Retardant; Flame Retardant for cellulose based materials and textiles
Restrictions on Use: Not for use as a thermal barrier or fire barrier. This product will reduce the rate of spread of fire by slowing down the burn rate of the material this product is applied to. This product will not preserve the material it is applied to.

Section 2. COMPOSITION, INFORMATION ON INGREDIENTS

CHEMICALS: HAZARDOUS

<u>Chemical Name</u>	<u>CAS#</u>	<u>% Weight</u>
None Listed		

CHEMICALS: NON-HAZARDOUS

<u>Chemical Name</u>	<u>CAS#</u>	<u>% Weight</u>
Ammonium Sulfate	7783-20-2	4 – 6
Proprietary Blend	N/A	5 – 13
Solvent/Diluent (H ₂ O (Water))	7732-18-5	83 – 92

***Chemicals listed above are specified on various states' Right to Know Lists. See Section 15.

Section 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! Causes eye, skin, and respiratory tract irritation.

Target Organs: Eyes, skin, and respiratory tract.

Potential Health Effects

Eye: Causes irritation, redness, pain.

Skin: Continued long-term exposure may cause irritation.

Ingestion: Ingestion of large quantities may cause gastrointestinal discomfort, vomiting, weakness or other medically related problems.

Inhalation: Causes respiratory tract irritation. May be harmful if inhaled. May cause respiratory difficulty and coughing. May contribute to asthma attacks or clearance problems in persons with these pre-existing pulmonary diseases.

Chronic: Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated exposure may cause eye damage. Chronic exposure may cause lung damage.

Additional Caution: This product is mildly corrosive to metals, but is not classified as corrosive when tested according to Part III, sub-section 37.4 of UN ST/SG/AC.10.

Section 4. FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 10 minutes. Get medical attention.

Skin: Wash skin with water. Wash clothing before reuse.

Ingestion: Do not induce vomiting. Drink plenty of water. Get medical attention.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Section 5. FIRE FIGHTING MEASURES	
General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Product is non-flammable. Decomposes at high temperatures, resulting in ammonia gases.
Extinguishing Media:	Product is non-flammable. Use appropriate extinguishing media for surrounding fire.
Fire:	Not considered to be a fire hazard
Explosion:	Not considered to be an explosion hazard
Special Fire Fighting Procedures:	Product may release ammonia gases under high heat. Use appropriate respirator.

Section 6. ACCIDENTAL RELEASE MEASURES	
General Information:	Wear appropriate personal protective equipment as specified in Section 8.
Spills/Leaks:	Dam area if needed, mop up and containerize for reclamation or disposal. Dispose of material at an appropriate waste disposal facility according to current applicable laws and regulations at time of disposal.

Section 7. HANDLING AND STORAGE	
Safe Handling:	Avoid contact with skin, eyes, and respiratory system. Provide appropriate exhaust ventilation at place of use. See precautions in Section 2.
Safe Storage:	Keep in a tightly closed container, store in a cool, dry, ventilated area. Store in original or similar container. Do not store in metal containers. Product is mildly corrosive to metals. Protect against physical damage. Observe all warnings and precautions listed for the product.

Section 8. EXPOSURE CONTROLS, PERSONAL PROTECTION	
Components with Workplace Control Parameters	
Product contains no chemicals with occupational exposure limits	
Exposure Controls	
Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of the workday.	
Ventilation System:	
In general, normal ventilation is a satisfactory health hazard control for this product. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.	
Personal Protection	
Eye Protection: Use chemical safety goggles and/or full face shield where splashing of product is possible.	
Respiratory Protection: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.	
Skin Protection: Wear appropriate protective clothing to prevent skin contact.	

Section 9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance:	Clear liquid
Odor:	Slight ammonia
Specific Gravity:	1.05
pH:	6.4
% Volatiles by volume @21C (70F)	None
Boiling Point:	100C/212F
Flash Point:	None
Vapor Density (Air=1):	Not applicable
Vapor Pressure (mm Hg):	Not applicable

Section 10.	STABILITY AND REACTIVITY
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Stability:	Stable
Conditions to Avoid:	Extremely high temperatures
Hazardous Decomposition Products:	Burning solids after full evaporation may produce ammonia and oxides of phosphor.
Hazardous Polymerization:	Will not occur
Incompatibilities:	Oxidizing agents

Section 11.	TOXICOLOGICAL INFORMATION
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Significant Routes of Exposure: Eyes, Skin, Respiratory System, Digestive Tract

No component chemicals are listed as carcinogens by ACGIH, IARC, NTP, or CA Prop 65

Section 12.	ECOLOGICAL INFORMATION
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Ecotoxicity: The component chemicals are slightly toxic to non-toxic to aquatic organisms based on the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) acute toxicity ratings.

Environmental Fate: The component chemicals are stable in water and soil. They are translocated in the soil only over very short periods and are then immobilized.

Toxicity: Component chemicals have the potential to increase the growth of freshwater algae, whose eventual death will reduce the available oxygen for aquatic life.

Degradation Products, Biodegradation: Component chemicals are hydrolyzed to ammonium and phosphates or are incorporated with the organic soil matter.

Section 13.	DISPOSAL CONSIDERATIONS
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Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal manner. State and local disposal regulations may differ from federal regulations.

Section 14.	TRANSPORT INFORMATION
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Not regulated by USDOT nor TDG-Canada.

Section 15.	REGULATORY INFORMATION
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US FEDERAL

TSCA

All component chemicals of this blend are listed on the TSCA Inventory

Health & safety Reporting List

None of the component chemicals are on the Health & Safety Reporting List

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule

Section 12b

None of the chemicals in this product are listed under TSCA Section 12b

TSCA Significant New Use Rule

None of the chemicals in this product have a SNUR under TSCA

CERCLA Hazardous Substances and Corresponding RQs

None of the chemicals in this product have an RQ

SARA

Section 302 Components

No chemicals in this product are subject to the reporting requirements of SARA Title III, Section 302

Section 313 Components

This product does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313

Clean Air Act

This product does not contain any hazardous air pollutants. This product does not contain any Class 1 Ozone Depletors. This product does not contain any Class 2 Ozone depletors.

Clean Water Act

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed Toxic Pollutants under the CWA.

OSHA

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE**Massachusetts Right to Know Components**

Ammonium Sulfate

Pennsylvania Right to Know Components

Ammonium Sulfate

New Jersey Right to Know Components

Ammonium Sulfate

California Prop 65

None of the chemicals in this product are considered to cause cancer and are not listed

EUROPEAN/INTERNATIONAL REGULATIONS**European Labeling in Accordance with EC Directives****Hazard Symbols**

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Risk Phrases

R 36: Irritating to eyes

R 37: Irritating to respiratory system

R 38: Irritating to skin

Safety Phrases

S 36: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S 37: Wear suitable eye/face protection

S 38: Wear suitable gloves

CANADA

All chemicals in this product are listed on Canada's Domestic Substances List (DSL)

None of the chemicals in this product are listed on Canada's Ingredient Disclosure List

Section 16. ADDITIONAL INFORMATION

HMIS RATINGS:

Health: 1

Flammability: 0

Reactivity: 0

Contact: 1

HMIS RATING SYSTEM:

4 – severe hazard

3 – serious hazard

2 – moderate hazard

1 – slight hazard

0 – minimal hazard

MSDS INFORMATION:

Preparation Date: 1 June 2015

Supercedes: 12 July 2012

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty or merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Turning Star be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Turning Star has been advised of the possibility of such damages.