



1. Identification

Product identifier	Flo-Thru Plus
Product code	FLOTHR
Recommended use	Turf & Horticulture
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Company name	Plant Food Company, Inc.
Address	38 Hightstown-Cranbury Station Road Cranbury, NJ 08512 United States
Telephone	Corporate Office 1-609-448-0935
Website	plantfoodco.com
E-mail	pfc@plantfoodco.com
Contact person	Grant Platz, Ted Platz
www.plantfoodco.com	
EH&S / Regulatory Department	
Emergency phone number	1-800-424-9300 CCN725928 or +1 703-527-3887 (collect calls accepted)
Call CHEMTREC Day or Night	
Within USA and Canada	
Other Countries	1-609-448-0935

2. Hazard(s) identification

Physical hazards	Flamable Liquid	
Health hazards	Acute toxicity, oral Serious eye damage/eye irritation Specific target organ toxicity, single exposure	Category 4 Category 2A Category 3 respiratory tract irritation Category 2
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
OSHA defined hazards Label elements	Not classified.	
Label elements	 	
Signal word	Warning Flammable Liquid	
Hazard statement	Harmful if swallowed. Causes serious eye irritation. May cause respiratory irritation.	
Precautionary statement	Use only outdoors or in a well-ventilated area. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye/face protection.	
Prevention		
Response	If swallowed: Call a poison center/doctor if you feel unwell. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. If eye irritation persists: Get medical advice/attention.	
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information		

3. Composition/information on ingredients

Mixtures		
Chemical name	Common name and synonyms	
CAS number	CAS number	%
Ethanol	64-17-5	50-90
Other components below reportable levels		

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. Remove contact lenses, if present and easy to do. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Most important symptoms/effects, acute and delayed	Irritation of eyes and mucous membranes.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim warm. In case of shortness of breath, give oxygen. Keep victim under observation. Symptoms may be delayed.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).
Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move containers from fire area if you can do so without risk.
Fire-fighting equipment/instructions Move container from fire area if it can be done without risk.
Specific methods Move container from fire area if it can be done without risk.
General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep people away from and upwind of spill/leak. Keep out of low areas. Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment.
Methods and materials for containment and cleaning up Stop the flow of material, if this is without risk.

Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in
 Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Do not taste or swallow. Avoid breathing mist or vapor. Avoid contact with eyes. Provide adequate ventilation. Wear appropriate personal protective equipment.
Conditions for safe storage, including any incompatibilities Store locked up. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits No exposure limits noted for ingredient(s).
Biological limit values No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls Provide eyewash station.
Individual protection measures, such as personal protective equipment
Eye/face protection Wear eye/face protection. Wear safety glasses with side shields (or goggles).
Skin protection
Hand protection For prolonged or repeated skin contact use suitable protective gloves.
Other Wear suitable protective clothing.
Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Aqueous solution.
Physical state Liquid.
Form Liquid.
Color Light blue.
Odor Alcohol
Odor threshold Not available.
pH 3.9
Salt-Out / Crystallization Temp Not available.
Melting point/freezing point Not available.
Initial boiling point and boiling range 165.2 - 176°F (74 - 80°C)
Flash point Not available.
Evaporation rate Not available.
Flammability (solid, gas) Not available.
Upper/lower flammability or explosive limits Not available.
Flammability limit - lower (%) Not available.
Flammability limit - upper (%) Not available.
Explosive limit - lower (%) Not available.

Explosive limit - upper (%)	Not available.
Vapor pressure	6.661 hPa @ 20° C (68 F°)
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	100%
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	400° C (752° F)
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Specific Gravity:	7.044
Pounds per gallon	8.8 lb/gal
Shelf life	> 2 years

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Harmful if swallowed.
Inhalation	May cause irritation to the respiratory system. May cause damage to organs by inhalation.
Skin contact	Not available.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Harmful if swallowed. May cause respiratory irritation.

Components	Species	Test Results
Ethanol	64-17-5	
LD50 Dermal	Rabbit	2000 mg/kg
LD50 Oral	Rat	2000 mg/kg
* Estimates for product may be based on additional component data not shown.		
Skin corrosion/irritation	Not available.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not available.	
Skin sensitization	Not available.	
Germ cell mutagenicity	Not Classified	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Not listed.	Not listed.	
Reproductive toxicity	Not available.	
Specific target organ toxicity - single exposure	Respiratory tract irritation.	
Specific target organ toxicity - repeated exposure	Not available.	
Aspiration hazard	Not available.	

12. Ecological information

Ecotoxicity	Toxic to aquatic life.	
Product	Species	Test Results
Ethanol	64-17-5	
Crustacea (water flea)	EC50	>100 mg/l, 48 hrs
Fish	LC50 Fish	>100 mg/l, 96 hrs
* Estimates for product may be based on additional component data not shown.		
Persistence and degradability	This material is biodegradable	
Bioaccumulative potential	Not expected to bioaccumulate	
Mobility in soil		
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	Not regulated as dangerous goods.
UN Number:	UN1170
UN Proper Shipping Name:	Not regulated as dangerous goods.
Transport Hazard Class:	3
Subsidiary Hazard Class(es):	
Packaging Group:	III
Special Precautions/Provisions:	49CFR Parts 100-185, Emergency Response Guidebook #127

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed.
SARA 304 Emergency release notification	Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed.
DOT:	49CFR Parts 100-185
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
SARA 302 Extremely hazardous substance	No
SARA 311/312 Hazardous chemical	Yes
SARA 313 (TRI reporting)	No

16. Other information, including date of preparation or last revision

Issue date	6/1/2015
Revision date	2/27/2015
Version #	2
Disclaimer	While the information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or information set forth, or that the products, or information may be used without infringing the intellectual property rights of others. In no case shall the information provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the information furnished by our company hereunder are given gratis and we assume no obligation or liability for the information given or results obtained, all such being given and accepted at your risk.

Revision Information	Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties
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