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FIRE POLY

FPCC / FP50CC

CLASSIFICATION FOR PLASTIC PIPE
INTERNATIONAL MARITIME ORGANIZATION
(MQ) RESOLUTION A 753 (18) ... ASTM F1173-95
NFPA 701 ... ASTM E84 and Extended E84
FIRE RETARDANT COATING
TESTING BY SOUTHWEST RESEARCH INSTITUTE

TEST	MATERIAL TESTED	RESULTS
Fire Endurance and Hydrostatic Evaluation Based on International Maritime Organization Resolution (IMO) Resolution A.753(18); Appendix 2 and ASTM F1173-95 Section A5 Wet Condition Classification of Water Filled Plastic Pipe	Conley epoxy 20, 6-in. FLGXFLG Spool pipe coated with Flame Safe Chemical Corporation's Fire Poly FPCC	PASSED

FIRE ENDURANCE	**PASSED**
Number of fire retardant coats	**3**
Rate per coat (ft^2gal)	**1050**
Finish coverage rate (ft^2gal)	**350**

Styrofoam - NFPA 701 - PASSED

3/4" Styrofoam/Polystyrene painted with latex paint, then coated with FPCC at 200 sq ft per gallon coverage rate. Passed NFPA 701 "Standard Method of Fire Tests for Flame Propagation of Textiles and Films," Small Scale test with 1.6% weight loss (<40% required). Tested by Diversified Testing Laboratories, Inc.

FIRE POLY FPCC TECHNICAL DATA
(Coating for Plastic)
EXTERIOR/INTERIOR

ADDITIONAL TESTING

ASTM E84	High Density Plastic	0 flame spread	190 smoke dev index
ASTM E84	Expanded Polystyrene	0 flame spread	100 smoke dev index
ASTM E84 Extended	1" EPS Panel		

PRODUCT DESCRIPTION: Aqueous Based Resin

PRODUCT ANALYSIS

Total Solids	46%	PH	2.5 - 2.8
Weight per gallon	11.7 lbs	Flash point	Non-flammable
Specific gravity	1.33	Color	Water clear at 78°F. - slight haze at 50°F. And lower
Volatibility	Non-volatile	Solvents	Water (contains no petroleum or derivatives of petroleum.)
Impact Resistance	Good	Bacterial	Good resistance
Corrosive	Slight with some common metals	Moisture absorption	Slight
Toxic	None, (when dry)	Incompatibility (materials to avoid)	Strong oxidizers, alkalis or acids
Scrubability	1000 cycles		

RECOMMENDED USE: Pressurized plastic and composite piping system, Styrofoam, polyurethane foam, polystyrene, plastics

FLAME SAFE FIRE POLY FPCC: Specially formulated for use on plastic pipe

FP50CC is a special fire retardant formula designed to protect **artificial Christmas trees, and other artificial foliage and decorations.** It is a clear top-coat. For nursing homes, schools, day cares, malls and other public buildings that are required to meet Life Code 101 standard. One quart will treat one typical five-foot tree. Spray outside or in a well ventilated area. Product has a strong odor. Use standard trigger sprayer on mist setting. Spray liberally, working from the inside (close to the trunk) to the outer branches, and from the bottom up. Allow to dry and cure completely before bringing back inside. If treated item is kept indoors, then retardancy remains effective indefinitely.

ENVIRONMENTAL REGULATION: This product complies will U. S. Federal Regulations concerning the use of lead in paint, and hydrocarbon emissions.

QUICK REFERENCE FOR APPLYING FIRE POLY FPCC

MATERIAL	APPLICATION	COVERAGE
Plastic Pipe	Be sure surface is clean and dry before treating. Apply with sprayer head held at 8 to 12 inches from surface. Be sure to allow for complete drying between each coat. Drying time depends on ambient temperature and humidity.	Apply three (3) coats at 1050 sq. ft. per coat with the final coverage rate of 350 sq. ft. per gallon
Styrofoam, polyurethane foam, polystyrene		Apply at a coverage rate of 200 sq.ft. per gallon

EXTERIOR/INTERIOR:

All surfaces to be treated must be clean and dry. Fire Poly FPCC is water based, clear liquid that becomes insoluble when dry. If over-coating is intended, Fire Poly FPCC is an excellent primer for use under or over latex paints. DO NOT DILUTE OR MIX FIRE POLY FPCC WITH ANY OTHER PRODUCTS. Avoid wasteful runs and dripping. It should be noted that unlike some products, materials treated with Fire Poly FPCC require no special cutting tools or special fasteners. Contact parts of any equipment should be stainless steel or plastic to prevent chemical reaction and breakdown. Storage may be done in polyethylene containers.

CAUTION:

Product must not freeze. It MUST NOT be thinned or diluted.

OVERSPRAY:

The overspray will not harm plants or animals. Spills can be flushed with water. A rag wetted with bleach and water mix will clean up spotting.

CLEAN UP PROCEDURE:

Airless Equipment:

1. Run clear water through the system until saturant is flushed out. When minor sudsing on surface stops, the system is flushed.
2. Run bleach and water mix (1 part to 4 parts) through the spray system as solvent for cleaning and to remove any residue.
3. Repeat Step 1 if any foaming occurs in Step 2.
4. Lubricate system as specified by equipment manufacturer to combat rusting or corrosion.

If two or more jobs are planned in the same day, the sprayer can be kept clean by running water through the system between jobs.

SAFETY FIRST:

It is a good practice to wear a respirator or mask and protect hands with rubber gloves when spraying any coating or chemical. When engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator for solvent vapors. A dusk mask does not provide protection against vapors.

If eye contact occurs, flood with water for fifteen (15) minutes and call a physician. **KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.**

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Flame Safe Chemical Corporation
Distributed by RDR Technologies, LLC
Phone: 817-740-9197

SAFETY DATA SHEET

OSHA Hazard Communication Standard 29CFR 1910.1200. Prepared to GHS

1. Product and Company Identification

·**Product identifier**

·**Trade name**: Fire Poly FPCC
·**Article number:** Flame Safe Fire Poly FP0CC
·**Relevant Identified uses of the substance or mixture and uses advised against**
·**Product description**
Fire retardant coating for plastic, artificial Christmas trees
·**Details of the supplier of the safety data sheet**
·**Manufacturer/Supplier:**
Flame Safe Chemical Corporation
2653 Warfield Avenue
Fort Worth, Texas 76106
Office: (817) 740-9197
Fax: (817) 740-9199
Emergency telephone number: (817-) 658-9197

2. Hazards Identification

·**Classification of the substance or mixture**
The product is not classified according to the Globally Harmonized System (GHS).

·**Label elements**
·**GHS label elements** Void
·**Hazard pictograms** Void
·**Signal word** Void
·**Hazard statements** Void
·**Precautionary statements** Precautionary statements
·**Classification system:** NFPA/HMIS Defintions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
·**NFPA Ratings (scale 0-4)**

Health = 2
Fire = 0
Reactivity = 0

·**HMIS - ratings (scale 0-4)**

Health	2	Health = 2
Fire	0	Fire = 0
Reactivity	0	Reactivity = 0

·**Other Hazards**
·**Results of PBT and vPvB assessment**
·**PBT:** Not applicable
·**VpvB:** Not applicable

3. Composition/information on ingredients

461-58-5 cyanoguanidine	< 10 %
7732-18-5 water, distilled, conductivity or of similar purity	50- 70%

·**Chemical characterization**: Mixtures
·**Description:** Mixture of the substances listed below with nonhazardous additions
·Dangerous components:

7664-38-2 phosphoric acid 85%	<20%
57-13-6 urea	<3%

4. First aid measures

·**Description of first aid measure**
·**General information**:
Phosphoric acid vapors may cause irritation and inflammation of eyes and mucous membranes of the upper respiratory tract. Repeated skin contact may cause skin irritation, dermatitis or other allergic reactions.
·**After Inhalation:**
Remove to fresh air immediately. Give oxygen or artificial respiration if necessary. Seek medical attention if necessary. Use adequate ventilation
·**After Skin Contact:**
Remove contaminated clothing. Promptly wash skin thoroughly with large quantities of soap and water for at least 5 minutes. If irritation persists, consult a physician. Launder contaminated clothing before use.
·**After eye contact:**
Rinse immediately with water. Remove contact lenses, them flush eyes immediately with running water for at least 15 minutes. Examination by a Physician is imperative.
·**After swallowing:**
Induce vomiting immediately by giving a tablespoon of salt in a glass of warm water and repeat until fluid is clear. Call a physician. Never give anything by mouth to an unconscious person
·**Most Important symptoms and effect, both acute and delayed**
Severe exposure may cause nausea, pulmonary irritation and loss of consciousness. May be fatal if swallowed. Prolonged contact with skin may cause reddening of affected area. Direct contact with the eyes causes redness, pain, conjunctivitis and with severe exposure possible corneal destruction. Vapors may cause pulmonary irritation and redness of the eyes.
·**Indication of any immediate medical attention and special treatment needed**

5. Firefighting measures

·**Extinguishing media**
·**Suitable extinguishing agents:**
Not combustible. Use water spray, dry chemical, alcohol foam, carbon dioxide or other agents as appropriate for materials in surrounding fire.
·**Special hazards arising from the substance or mixture**
May liberate hydrogen gas upon contact with some non ferrous metals. Protect personnel against mist, vapor or splashes.
·**Advice for firefighters:**
Use self contained breathing apparatus and protection for skin. Use water spray to keep storage containers cool. Use safety equipment and clothing which is suitable for phosphoric acid and materials in surrounding fire.
·**Protective equipment:**
Use self contained breathing apparatus and protection for skin. Use water spray to keep storage containers cool. Use safety equipment and clothing which is suitable for phosphoric acid and materials in surrounding fire.

6. Accidental release measures

·**Personal precaution, protective equipment and emergency procedures**
Not required.

·**Environmental precautions:**
Do not allow to enter sewers/surface or ground water. Dispose of waste in compliance with all Federal, State and local regulation.

·**Methods and material for containment and cleaning up:**
Confine spilled material and absorb on sand, sawdust, earth, or other available solids. Sweep and place in a suitable container.

·**Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information

7. Handling and storage

·**Precautions for safe handling**
- Keep away from eyes
- Avoid contact with skin or clothing
- Use only with adequate ventilation
- Avoid breathing mist or vapor
-Wash skin that contacted material with soap and water
-Do NOT use or store near heat or open flame

·**Information about protection against explosions and fires:**
This product is stable, non combustible.

·**Conditions for safe storage, including any incompatibilities**
May liberate hydrogen gas after long term storage of liquid in metal containers. Store liquid only in stainless steel, plastic or glass containers.

· **Storage:** Stable at normal storage conditions.

·**Requirements to be met by storerooms and receptacles**: No special requirements

·**Information about storage in one common storage facility:** Not required.

·**Further information about storage conditions:** None

·**Specific end use(s):** No further relevant information.

8. Exposure controls/ personal protection

·**Additional information about design or technical systems:** No further data; see item 7

·**Control parameters**

·**Components with limit vales that require monitoring at the workplace:**

7664-38-2 phosphoric acid 85%
PEL 1mg/m^3
REL Short-term value: 3mg/m^3
Long-term value: 1mg/m^3
TLV Short-term value: 3mg/m^3
Long-term value: 1mg/m^3

57-13-6 urea
WEEL 10 mg/m^3

·**Additional information:**

·**Exposure controls**

·**Personal protective equipment:**

·**General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed

·**Breathing equipment:**
Use NIOSH/MSHA approved respirator suitable for use with inorganic acids and organic vapors if proper ventilation can not be provided.

·**Protection of hands:**
Wear impervious gloves as necessary to avoid contact, rubber, or neoprene

·**Material of gloves:**
Wear impervious gloves as necessary to avoid contact, rubber, or neoprene
·**Penetration time of glove material:**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed
·**Eye Protection:**
Protective glasses or goggles.

9. Physical and chemical properties

·**Information on basic physical and chemical properties**
·**General Information**
·**Appearance:**

Form:	Liquid
Color:	Milky
·**Odor:**	Yes
·**Odor threshold:**	Moderate
pH-value:	2.8-3.4
Change in condition	
Melting point:	N/A
Boiling point:	208°F to 212°F
Flash point:	Non Flammable
Flammability (solid, gaseous):	Not applicable
·**Ignition temperature:**	
Decomposition temperature:	Not determined
·**Auto igniting:**	Product is not self igniting
·**Danger of explosion:**	Product does not present an explosion hazard
·**Explosion limits:**	
Lower:	Not applicable
Upper:	Not applicable
·**Vapor pressure at 20°C (68°F):**	17mm Hg
·**Density:**	Not determined
·**Relative density**	Not determined
·**Vapor density**	Not determined
·**Evaporation rate**	Not determined
·**Solubility in water**	Soluble in liquid state
·**Partition coefficient (n-octalor/water):**	Not applicable
·**Viscosity:**	
Dynamic:	Not determined
Kinematic:	Not determined
·**Solvent content:**	
Organic solvents:	0.0%
Water:	54%
·**Solid content:**	46%
·**Other information:**	No further relevant information available

10. Stability and reactivity

·**Thermal decomposition and conditions to be avoided:** No decomposition if used according to specifications

·**Possibility of hazardous reactions:** No dangerous reaction known

·**Conditions to avoid:** Stable at normal storage conditions.

·**Incompatible materials:** Strong oxidizers, alkalis or acids. Slowly reacts with some non ferrous metals causing hydrogen gas and water vapors to be emitted

·**Hazardous decomposition products:** No dangerous decomposition products known

11. Toxicological information

·**Information on toxicological effects**

·**Acute toxicity:** None

·**Primary irritant effect:**

·**On the skin:** Moderate

·**On the eye:** Moderate

·**Sensitization:** No sensitizing effects known

·**Additional toxicological information:** The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specification, the product does not have any harmful effects according to our experience and the information provided in this document

·**Carcinogenic categories:**

·**IARC (International Agency for Research on Cancer)**

·**NTP (National Toxicology Program)**

12. Ecological Information

·**Toxicity**

·**Aquatic toxicity:** No further relevant information available

·**Persistence and degradability:** No further relevant information available

·**Bioaccumulative potential:** No further relevant information available

·**Mobility in soil**: No further relevant information available

·**Additional ecological information:**

·**General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage systems

·**Results of PBT and vPvB assessment**

·**PBT:** Not applicable

·**vPvB:** Not applicable

·**Other adverse effects:** No further relevant information available

13. Disposal considerations

·**Waste treatment methods**

·**Recommendation:** Smaller quantities can be disposed of with household waste

·**Uncleaned packaging(s):**

·**Recommendation:** Disposal must be made according to official regulations

14. Transport Information

·**UN-Number**

·**DOT,ADR,ADN,IMDG,IATA** Void

·**UN proper shipping name**	None
·**DOT,ADR,ADN,IMDG,IATA**	Void
·**Transport hazard class(es)**	
·**DOT,ADR,ADN,IMDG,IATA**	
·**Class**	Void
·**Packing group**	
·**DOT,ADR,IMDG,IATA**	**Void**
·**Environmental hazards:**	
·**Marine pollutant**	No
·**Special precautions for user**	Not applicable
·**Transport in bulk according to Annex II of MARPOL73/78 and the IBC code**	Not applicalbe
·**UN "Model Regulation":**	-

15. Regulatory information

·**Safety, health and environmental regulation/legislation specific for the substance or mixture**
·**Sara**
·**Section 355(extremely hazardous substances):**
·**Section 313 (Specific toxic chemical listings):**
7664-38-2 phosphoric acid 85%
·**TSCA (Toxic Substances Control Act):**
7664-38-2 phosphoric acid 85%
57-13-6 urea
·**Proposition 65**
·**Chemical known to cause cancer:** None of the ingredients is listed
·**Chemicals known to cause reproductive toxicity for females:** None of the ingredients is listed
·**Chemicals known to cause reproductive toxicity for males:** None of the ingredients is listed
·**Chemicals known to cause developmental toxicity:** None of the ingredients is listed
·**Carcinogenic categories**
·**EPA (Environmental Protection Agency)** None of the ingredients is listed
·**TLV (Threshold Limit Value established by ACGIH)** None of the ingredients is listed
·**NIOSH-Ca(National Institute for Occupational Safety and Health)** None of the ingredients is listed
·**OSHA-CA(occupational Safety & Health Administration)** None of the ingredients is listed
·**GHS label elements** Void
·**Hazard pictograms** Void
·**Signal word** Void
·**Hazard statements** Void
·**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

·**Abbreviations and acronyms:**
ADR: Accord europeen sur le transport des marchandises dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation

IATA: International Air Transport Association
ACGIH: American Conference of Governmental Insustrial Hygienists
NFPA: National Fire Protection Agency
HMIS: Hazardous Materials Identification System (USA)

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