



## ForceField® FireGuard™ XL95 Flame Retardant for Wood

### SAFETY DATA SHEET

#### SECTION 1 – CHEMICAL AND COMPANY IDENTIFICATION:

Product Name: ForceField FireGuard XL95 Flame Retardant for Wood    Date Printed: 12/9/2015  
Product Use/Class: Water-Based Flame Retardant for Wood    Product ID: F FG-XL95

Supplier: Shield Industries, Inc.    Manufacturer: Shield Industries, Inc.  
Address: 131 Smokehill Lane    Address: 131 Smokehill Lane  
Woodstock, GA 30188 - USA    Woodstock, GA 30188 - USA  
Telephone: 770-517-6869    24 Hour Emergency Hotline: 800-535-5053

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#### SECTION 2 – HAZARD/ IDENTIFICATION:

<b>Physical hazards:</b>	Not applicable	Not applicable
<b>Health hazards:</b>	Acute toxicity	Not applicable
	Skin irritation	Category 3
	Specific target organ toxicity, single exposure	Category 3

**Environmental hazards:** Not classified.  
**OSHA defined hazards:** Not classified.

#### Label elements:



**Signal word:** Warning

**Hazard statement** Causes skin irritation. (H315)  
Causes serious eye irritation. (H319)

#### Precautionary statements:

**Prevention:** Read label before use. (P103)  
Wear protective gloves/protective clothing/eye protection/face  
protection. (P280)  
Wash hands and exposed skin thoroughly after handling. (P264)

- Response:** IF SWALLOWED: Get medical advice/attention. (P301 + P313)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305 + P351 + P338)
- Storage:** Keep out of reach of children. (P102)
- Disposal:** Dispose of contents/container to an approved waste disposal plant. (P501)

**Hazard(s) not otherwise classified (HNOC):** None.

**Supplemental information:**  
TOXICITY STATEMENT: This product is a mixture containing up to 55% of ingredients with unknown toxicity.

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### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS:

<u>COMPONENTS</u>	<u>CAS NUMBER</u>	<u>%</u>
Water	7732-18-5	< 60 %
Organic Ammonium Salt (Proprietary)	Trade Secret*	< 55 %
2-Propanol	67-63-0	< 0.5 %

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

**Additional Information:**

Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below:  
None

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### SECTION 4 FIRST AID MEASURES

- Inhalation:** Move person to fresh air and keep at rest in a position comfortable for breathing. If breathing is labored, administer oxygen. If systems persist, contact a POISON CENTER or doctor/physician..
- Skin contact:** If on skin, wash thoroughly with soap and water. If on clothes, remove clothing. Get medical attention if irritation develops and persists.
- Eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Keep eyes wide open and continue rinsing. Get medical attention if irritation develops and persists.
- Ingestion:** Effects of ingestion are unknown. Never give anything by mouth to an unconscious person. Drink water to reduce effects of ingestion. Seek medical attention immediately and follow instructions given.

**Most important symptoms/effects, acute and delayed:**

May cause stinging of eyes and/or irritation. Prolonged and repeated skin exposure may be irritating to some people.

**Indication of immediate medical attention and special treatment needed:**

If ingested: Immediately seek medical attention. Provide general supportive measures and treat symptomatically. Keep victim under observation.

**General information:**

More affected persons from dangerous area. Do not leave victim unattended. Ensure that medical personnel are aware of the material(s) involved. Show this safety data sheet to the doctor in attendance.

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**SECTION 5 FIRE FIGHTING MEASURES**

**Suitable extinguishing media:**

Non-combustible. Use media appropriate for surrounding fire.

**Unsuitable extinguishing media:**

None known.

**Specific hazards arising from the chemical:**

Thermal decomposition may evolve toxic and/or irritant vapours. Forms fumes of oxides of carbon and nitrogen.

**Special protective equipment and precautions for firefighters:**

None known. Use personal protective equipment appropriate for surrounding fire.

**Fire-fighting equipment/instructions:**

Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapour pressure build up.

**Specific methods:**

Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

**General fire hazards:**

None known.

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**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures:**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

**Environmental precautions:**

Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground. Prevent further leakage or spillage if safe to do so. Inform appropriate managerial or supervisory personnel of all environmental releases.

**Methods and materials for containment and cleaning up:**

Contain spillages and then collect with sand, earth, diatomaceous earth, vermiculite, or any other suitable adsorbent material. Collect spillage. Transfer to a container for disposal or recovery. Following product recovery, flush area with water. If possible prevent water running into sewers. For waste disposal, see section 13 of the SDS.

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**SECTION 7 HANDLING AND STORAGE**

**Precautions for safe handling:**

Avoid contact with skin and eyes. Wear appropriate personal protective equipment. Smoking, eating and drinking should be prohibited in the application area. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. When opening containers, do so slowly to vent slight pressure that may build up after prolonged storage.

**Advice on protection against fire and explosion:**

None – Product is non-combustible

**Conditions for safe storage, including any incompatibilities:**

Keep out of reach of children. Keep container tightly closed in a dry and well-ventilated place. Keep cool. Do not store in temperatures below 0° C or above 50° C. Containers which are opened must be carefully resealed and kept upright to prevent leakage. When opening containers, do so slowly to vent slight pressure that may build up after prolonged storage. Observe label precautions.

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**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Occupational exposure limits:**

**U.S. ACGIH Threshold Limit Values**

<b>Components</b>	<b>CAS</b>	<b>Type</b>	<b>Value</b>
2-Propanol	67-63-0	TWA	983 mg/m <sup>3</sup>
		STEL	1,230 mg/m <sup>3</sup>

**U.S. OSHA**

<b>Components</b>	<b>CAS</b>	<b>Type</b>	<b>Value</b>
2-Propanol	67-63-0	TWA	983 mg/m <sup>3</sup>
		STEL	1,230 mg/m <sup>3</sup>

**U.S. NIOSH**

<b>Components</b>	<b>CAS</b>	<b>Type</b>	<b>Value</b>
2-Propanol	67-63-0	TWA (10 hr.)	983 mg/m <sup>3</sup>
		STEL	1,230 mg/m

**Appropriate engineering controls:**

Not normally required with adequate local ventilation. In the absence of adequate local ventilation, provide mechanical ventilation. If conditions exist where threshold limits may be exceeded, consult a respiration safety consultant on the appropriate respiratory protection required.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:**

Wear safety glasses with side shields (or goggles) where splashing is likely.

**Hand protection:**

Wear appropriate chemical resistant gloves to minimize physical contact (Butyl rubber, Neoprene, or Natural rubber). Check with protective equipment manufacturer's data.

**Skin protection/Other:**

Not normally required.

**Respiratory protection:**

Not normally required with adequate local ventilation. In the absence of adequate local ventilation, provide mechanical ventilation. If conditions exist where threshold limits may be exceeded, consult a respiration safety consultant on the appropriate respiratory protection required.

**Thermal hazards:**

Not normally required.

**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.

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**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:**

**Physical state:** Liquid  
**Form:** Liquid emulsion.  
**Color:** Clear to slightly hazy.

**Odor:** Characteristic, Mild

**Odor threshold:** Not available.

**pH:** 6.5 +/- 0.5

**Melting point/freezing point:** Not available.

**Initial boiling point and boiling range** > 100 °C estimated

**Flash point:** Non-combustible

**Evaporation rate:** Approximately 1 (water = 1)

**Flammability (solid, gas):** Not applicable.

**Upper/lower flammability or explosive limits:**

**Flammability limit – lower (%):** Not available.

**Flammability limit – upper (%):** Not available.

**Explosive limit - lower (%):** Not available.

**Explosive limit - upper (%):** Not available.

**Vapor pressure:** Not available.

**Relative Vapor density:** Not available.

**Relative density:** 1.11 +/- 0.02

**Solubility (water):** Completely emulsifiable.

**Partition coefficient (n-octanol/water):** Not available.

**Auto-ignition temperature:** Not applicable.

**Decomposition temperature:** Not available.

**Viscosity (kinematic cSt @ 40 °C):** Not available.

**Other information:**

VOC: 0.50 %  
LVP: 0.00 %  
Ionic nature: Non-Ionic

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**SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:**

The product is stable and non-reactive under normal ambient conditions of use, storage and transport.

**Chemical stability:**

Material is stable under normal conditions.

**Possibility of hazardous reactions:**

None anticipated.

**Conditions to avoid:**

Avoid contact with incompatible materials.

**Incompatible materials:**

Strong oxidizing agents.

**Hazardous decomposition products:**

At temperatures over 200 C, or under fire conditions, thermal decomposition may evolve toxic and/or irritant vapours. Forms: oxides of carbon, and nitrogen.

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**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure:**

**Inhalation:** No effects expected, however, may cause mild irritation to respiratory tract.  
**Skin contact:** May cause skin irritation and/or dermatitis.  
**Eye contact:** Vapors may cause irritation to the eyes  
**Ingestion:** Not a likely route of exposure. Effects are not known.

**Symptoms related to the physical, chemical and toxicological characteristics:**

Eye irritation: Symptoms may include stinging, tearing, redness, swelling, and blurred vision.  
Skin irritation. Prolonged and repeated skin exposure may be irritating to some people.  
Ingestion: Not a likely route of exposure. Effects are not known. Seek medical attention if injected

**Information on toxicological effects of components:**

**Acute toxicity:**

<b>Components</b>	<b>CAS#</b>	<b>Test</b>	<b>Species</b>	<b>Test Results</b>
2-Propanol	67-63-0	LD50 Oral	Rat	5,045 mg/kg
		LD50 Dermal	Rabbit	12,800 mg/kg
		LC50 Inhalation	Rat	16,000 ppm (8 hr.)

**Skin corrosion/irritation:** Prolonged and repeated skin exposure may be irritating to

some people.

**Serious eye damage/eye irritation:** Vapours may cause eye irritation.

**Respiratory or skin sensitization:**

**Respiratory sensitization:** No effects expected, however, may cause mild irritation to respiratory tract.

**Skin sensitization:** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity:** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity:** No data available to indicate that this product is considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Component information:** 2-Propanol (CAS# 67-63-0)  
IARC: Human Inadequate Evidence, Animal Inadequate Evidence, Group 3; EC: Category 1

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

Not listed.

**Repeated dose toxicity:**

No data.

**Specific target organ toxicity - single exposure:**

No data for product:

Component data: 2-Propanol (CAS# 67-63-0): Central nervous system.

**Teratogenicity:**

No data.

**Aspiration hazard:**

No data.

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## SECTION 12 ECOLOGICAL INFORMATION

**Ecotoxicity:** No data available for product. Trace component (<0.5%) 2-Propanol (CAS 67-63-0) is known to be highly toxic to aquatic life.

**Acute Toxicity:**

<b>Components/CAS</b>	<b>Test</b>	<b>Species</b>	<b>Test Results</b>
2-Propanol/ 67-63-0	Aquatic Fish LC50	Brook trout ( <i>Salvelinus fontinalis</i> )	730 ug/l, 96 hr.
	Invertebrate EC20	Ciliate Protozoa ( <i>Tetrahymena thermophila</i> )	3,142 mg/l, 48 hr.
	Algal EC50	Green algae ( <i>Chlorella pyrenoidosa</i> )	2,200 ug/l, 96 hr.

**Long Term Toxicity:**

No data available.

**Persistence and degradability:**

No data available.

**Bioaccumulative potential:**

No data available for product.

Component data: 2-Propanol (CAS 67-63-0)

0.38 ug/L 15 hour(s) BCF (Residue) Red swamp crayfish (*Procambarus clarki*) 10 ug/L

**Mobility in soil:**

No data available.

**Results of PBT and vPvB assessment:**

No data available.

**Other adverse effects:**

None known.

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**SECTION 13 DISPOSAL CONSIDERATIONS**

**Waste treatment/disposal instructions:**

Disposal should be in accordance with local, state, or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

**Waste from residues / unused products:**

Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with federal, state, and local regulations.

**Contaminated packaging:**

Exercise caution as empty containers or liners may retain some product residues. Do not re-use empty containers. Do not burn, or use a cutting torch on, empty containers. Dispose of empty containers in accordance with federal, state, and local regulations.

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**SECTION 14 TRANSPORT INFORMATION**

**DOT**

**UN number:** Not applicable

**UN proper shipping name:** Cleaning compounds N.O.S.

**Transport hazard class(es):**

**Class:** Not applicable

**Subsidiary risk:** -

**Label(s):** Not applicable

**Packing group:** Not applicable

**Special precautions for user:**

Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

**Environmental hazards:** No

**Special provisions:** None Assigned

**Packaging exceptions:**

None – Not classified as dangerous for transportation

**Packaging bulk:**

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:  
Not applicable

**IATA**

**UN number:** Not applicable



**UN proper shipping name:** Cleaning compounds N.O.S.  
**Transport hazard class(es):**  
    **Class** Not applicable  
    **Subsidiary risk** -  
    **Label(s)** Not applicable  
**Packing group** Not applicable  
**Environmental hazards** No  
**ERG Code** Not applicable

**Special precautions for user:**

Read safety instructions, SDS and emergency procedures before handling. Read Safety instructions, SDS and emergency procedures before handling.

**Packaging bulk:**

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:  
Not applicable

**IMDG**

**UN number:** Not applicable  
**UN proper shipping name:** Cleaning compounds, n.o.s.  
**Transport hazard class(es):**  
    **Class:** Not applicable  
    **Subsidiary risk:** -  
    **Label(s):** Not applicable  
    **Packing group:** Not applicable  
    **Environmental hazards:**  
    **Marine pollutant:** No

**Special precautions for user:**

Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

**Packaging bulk:**

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:  
Not applicable

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**SECTION 15 REGULATORY INFORMATION**

**US federal regulations:**

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List or polymer exempt.

**TSCA Section 5 SNUR: (40 CFR 721.10536.**

No Listed materials.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

No Listed materials.

**SARA 311/312 – Superfund Amendments and Reauthorization Act of 1986:**

**Hazard categories:**

Immediate Hazard No

Delayed Hazard        No  
Fire Hazard            No  
Reactivity Hazard     No

**SARA 313 – Toxic Chemicals (40 CFR 372):**

No Listed materials.

**SARA 302 Threshold Planning Quantity:**

Not regulated.

**Other federal regulations:**

**Clean Air Act (CAA) Ozone-Depletion Potential:**

This product neither contains, nor was manufactured with a Class I, or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A+B).

**US state regulations**

**U.S. California Proposition 65:**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive effects.

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**SECTION 16 OTHER INFORMATION**

NFPA RATING:    HEALTH: 1            FLAMMABILITY: 0            REACTIVITY: 0

HMIS RATING:    HEALTH: 1            FLAMMABILITY: 0            REACTIVITY: 0

Personal protection rating to be supplied by user depending on use conditions.

**PREPARATION INFORMATION:**

DATE CREATED:        01/01/06            LAST REVISION:        11/04/2015

CREATED/REVISED BY:        R. Lasnik

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**End of SDS**