

MATERIAL SAFETY DATA SHEET (MSDS)

Section 1. PRODUCT & COMPANY IDENTIFICATION:

Trade Name	SAFEGUARD FF-3% (Type 3) (FROST FOAM)
Chemical Classification	N/A
CAS Number	Mixture
Hazchem Number	N/A
Application & use	Fire Fighting Foam Concentrate specially designed for protection of crops from frost.
Manufacturer	SAFEGUARD FIRE PROTECTIONS PVT. LTD., B-3, Mangolpuri, Industrial Area, Phase -II, New Delhi- 110034 (India), Mob: +91 9818272647
Emergency phone no. for information & supply	+91 9818272647

Section 2. INGREDIENT - COMPOSITION INFORMATION:

MAJOR INGREDIENTS	CAS.No.
1. Protein hydrolysate	100085-61-8
2. Solvent	34590-94-8
4. Stabiliser	102-71-6
5. Bio surfactants	Mixture
5. Water	7732-18-5

Section 3. HAZARD IDENTIFICATION:

Flammability		Corrosive Material	<i>Little corrosive to metals like MS, Bronze, Aluminum</i>
LEL %v	N/A		
UEL %v	N/A		
TDG Flammability	N/A	Organic Peroxide	No
Explosion Sensitivity to impact	None	Autoignition Temperature °C	N/A
Flammable Material	No	Hazardous Polymerization	Will not occur
Oxidizer	No	Explosive Material	No
Flash Point	No flash	Pyrophoric Material	No
Explosion Sensitivity to Static Electricity	None	Others	N/A
Combustible Liquid	No		
Hazardous Combustion Products: Not known. However oxides of carbon, nitrogen and sulfur may be formed during use for extinction of fire.			
NFPA Hazard Signals	Health 1	Flammability 0	Stability 0 Special N/A

EMERGENCY OVERVIEW:

FIRE	
Fire Extinguishing Media	Material is itself a fire extinguishing agent
Special Procedures	None
Unusual Hazard	None
EXPOSURE	
User guidelines	Avoid getting chemicals on you or in you. Cause eye-irritation and may cause skin irritation. Swallowing large amount of chemicals may cause injury or irritation
SPILLS	
Steps to be taken	Stop leak. Collect spilled concentrates. Rinse the affected area with plenty of water until it no longer foams. Care should be taken to avoid slip hazard.

Section 4. FIRST AID MEASURES:

Flush eyes with water at least for 15 minutes. Remove contaminated clothing. Wash skin with ample water several times. If ingested, have victim drink water and obtain medical attention immediately.

Section 5. FIRE FIGHTING MEASURES:

Fire Extinguishing Media	Material is itself a fire extinguishing agent	TDG Flammability	NA
Unusual Hazard	None	Explosion Sensitivity to impact	None

Section 6. ACCIDENTAL RELEASE MEASURES:

Stop leak. Use appropriate protective equipment during cleanup. Collect spilled concentrates. Rinse the affected area with plenty of water until it no longer foams. Care should be taken to avoid slip hazard. Disposal should be made in accordance with federal, state and local regulations.

Section 7. HANDLING & STORAGE:

Handling: Avoid getting chemicals on you or in you. Wash hands after handling chemicals. Don't eat or drink while handling chemicals.

Storage: NO Special conditions are required for safe storage. Store in original container. As much as possible keep from being washed into surface water.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

Avoid getting chemicals on you or in you. Use tightly sealed safety glass or goggles for eye protection, use PVC/Nitrile or butyl rubber gloves, apron and rubber boots for skin protection.

Section 9. PHYSICAL & CHEMICAL PROPERTIES:

Physical State	Liquid	Vapour Density (Air=1)	Data not available
Odour	Characteristic	Specific gravity (Water=1)	1.0-1.12 at 20±1°C
Appearance	Pale yellow to brown	Vapour Pressure	Data not available
Boiling point/Range	100°C (Initial)	@35°C, mm Hg	
Freezing point	Below (-)10°C	Solubility in water @30°C	100% Soluble
		pH	6.5-8.5 at 20±1°C

Section 10. STABILITY & REACTIVITY:

Chemical Stability	Stable
Incompatibility with other material	Avoid use of product on burning metals, electrically energized equipment and contact with water reactive material
Reactivity	None
Hazardous Reaction Products	Not known

Section 11. TOXICOLOGICAL INFORMATION

Effects of exposure/Symptoms	Cause eye-irritation and may cause skin irritation. Swallowing large amount of chemicals may cause injury or irritation
Permissible Exposure Limit, LD ₅₀	>6gm/Kg body wt. of rat (oral)

Section 12. ECOLOGICAL INFORMATION;

This product is an ecologically inert material. It does not contain ozone depleting substances and is not expected to exert an eco-toxic effect or bio-accumulated in the food chain.

Section 13. DISPOSAL CONSIDERATION:

Prevent discharge foam/foam solution to waterways without treatment. Waste disposal should be made in accordance with central, state and local regulations. Waste may be incinerated or disposed of by treatment at a permitted facility only with permission or as advised by competitive authority.

Section 14. TRANSPORT INFORMATION

Department of Transportation (DOT) : Not classified.

Section 15. REGULATORY INFORMATION

Shipping Name	N/A
Shipping Code/Label	N/A
Hazardous waste I.D. No	N/A

Section 16. OTHER INFORMATION

KEY

- CAS : Chemical Abstracts Service
- DOT : Department of Transportation
- NFPA : National Fire Protection Association
- TDG : Transportation of dangerous goods.
- UEL : Upper exposure limit
- LEL : Lower exposure limit.

DISCLAIMER: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.