SAFETY DATA SHEET

CF-33 Dry Chemical Agent

Issue Date: 05-08-2018

1. Product and Company Identification

Material Name	**CF-33 Dry Chemical Agent**
Revision Date	08-01-2016
Issue Date	08-01-2003
CAS #	Mixture
Product Use	Fire Suppression System
Manufacturer / Importer / Supplier	
Name	Cease Fire, LLC
	9321 NE 72nd Ave Suite 12
	Vancouver, WA 98665
Phone	360-567-0990
Internet	http://www.ceasefire.com
Emergency Phone Number	CHEMTREC 800-535-5053 or 360-600-2591

2. Hazards Identification

Emergency overview	WARNING
	Irritating to eyes and skin
Potential health effects	
Routes of exposure	Eye contact. Skin contact. Inhalation, Ingestion
Eyes	Avoid contact with eyes. Contact with eyes may cause irritation
Skin	Avoid contact with skin. May cause skin irritation
Inhalation	Inhalation of dusts may cause respiratory irritation
Ingestion	Not a likely route of entry
Target organs	Eyes. Respiratory system. Skin.
Signs and symptoms	Coughing and irritation of airways.

3. Composition / Information on Ingredients

Hazardous Components	CAS #	Percent
Calcium Carbonate	1317-65-3	<1
Non-hazardous Components	**CAS #**	**Percent**
Mono-ammonium Phosphate	7722-76-1	50-77
Ammonium Sulfate	7783-20-2	15-45
Attapulgite Clay	12174-11-7	3-8
Mica-potassium Aluminum Silicate	12001-26-2	1-3
Silicone Oil Methyl Hydrogen Polysiloxane	63148-57-2	<1
Amorphous Silica Precipitated Synthetic Zeoliteghs	7631-86-9	<1
Yellow 14 Pigment – Diazo Dye	5468-75-7	<1
Additional Additives Unique to CF-33		PROPRIETARY

4. First Aid Measures

First aid procedures

Eye contact — May cause irritation. Irrigate eyes with water and repeat until pain free. Seek medical attention if irritation develops, or if vision changes occur.

Skin contact — May cause skin irritation. In case of contact, wash with plenty of soap and water. Seek medical attention if irritation persists.

Inhalation — May cause irritation, along with coughing. If respiratory irritation or distress occurs, remove victim to fresh air. Give oxygen and artificial respiration if needed. Seek medical attention if irritation persists.

Ingestion — Overdose symptoms may include numbness or tingling in hands or feet, uneven hear rate, paralysis, feeling faint, chest pain or heavy feeling, pain spreading to the arm or shoulder, nausea, diarrhea, sweating, general ill feeling or seizure (convulsions). If victim is conscious and alert, give 2-3 glasses of water to drink. If conscious, do not induce vomiting. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist.

Notes to physician — Symptoms may be delayed

General Advice — If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this material safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable Properties	Not Flammable
Flash Point	Not Determined
Suitable Extinguishing Media	Non-combustible. Use Extinguishing media suitable for surrounding conditions.
Hazardous Combustion Products	Carbon and sulfur oxides
Explosion Data	
Sensitivity to Mechanical Impact	Not sensitive
Sensitivity to Static Discharge	Not sensitive
Unusual fire/explosion hazards	In a fire this material may decompose, releasing toxic and irritating oxides of carbon, sulfur, potassium, ammonia and nitrogen.
Protective Equipment	As in any fire, wear self-contained breathing apparatus in pressure-demand, NIOSH approved or equivalent and full protective gear.

6. Accidental Release Measures

Personal precautions	Avoid inhalation, and contact with skin, eyes, and clothing.
Personal Protective Equipment	Minimum – safety glasses, gloves, and a dust respirator.
Emergency Procedures	N/A
Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean Up	Avoid dust formation. Clean up released material using vacuum or wet sweep and shovel to minimize generation of dust. Bag and transfer to properly labeled containers. Ventilate area and was spill site after material pickup is complete.
Environmental Precautions	Prevent material from entering waterways.
Other	If Product is contaminated, use PPE and containment appropriate to the nature of the most toxic chemical/material in the mixture.

7. Handling and Storage

Personal Precautions	Use appropriate PPE when handling or maintaining equipment, and wash thoroughly after handling (see Section 8).
Conditions for Safe Storage/Handling	Keep product in original container or fire suppression system unit. Contents may be under pressure – inspect the fire suppression system unit consistent with product labeling to ensure container integrity.
Incompatible Products	Do not mix with other extinguishing agents, particularly potassium bicarbonate and sodium bicarbonate. Incompatible with strong oxidizing agents and strong acids. Do not store in high humidity. Do not combine with chlorine compounds.

8. Exposure Controls/Personal Protection

Chemical Name	OSHA PEL	ACGIH TLV	DFG MAK*	EU BLV
Mono-ammonium phosphate	PNOC** Total dust, 15 mg/m³ Respirable fraction, 5 mg/m³	PNOC Total dust, 10mg/m³ Respirable fraction, 3 mg/m³	PNOC Total dust, 4 mg/m³ Respirable fraction, 1.5 mg/m³	NA
Ammonium Sulfate	PNOC** Total dust, 15 mg/m³ Respirable fraction, 5 mg/m³	PNOC Total dust, 10mg/m³ Respirable fraction, 3 mg/m³	PNOC Total dust, 4 mg/m³ Respirable fraction, 1.5 mg/m³	NA
Mica	6 mg/m³	3 mg/m³	NR	NA
Attapulgite Clay	PNOC** Total dust, 15 mg/m³ Respirable fraction, 5 mg/m³	PNOC Total dust, 10mg/m³ Respirable fraction, 3 mg/m³	PNOC Total dust, 4 mg/m³ Respirable fraction, 1.5 mg/m³	
Silicone Oil	NR**	NR	NR	NA
Calcium Carbonate	PNOC** Total dust, 15 mg/m³ Respirable fraction, 5 mg/m³	PNOC Total dust, 10mg/m³ Respirable fraction, 3 mg/m³	----------	NA
Amorphus Silica	80 mg/m³ % Silica	10 mg/m³	4 mg/m³	NA
Yellow 14 Pigment	NR	NR	NR	NA

*Germany regulatory limits **PNOC = Particulates not otherwise classified (ACGIH) also known as Particulates not otherwise regulated (OSHA) *** NR = Not Regulated. All values are 8 hour time weighted average concentrations.

9. Physical and Chemical Properties

Appearance Light yellow powder, finely divided odorless solid

Specific Gravity (H20 = 1): 1.80

Solubility in Water Slightly Water Soluble

Melting Point 374°Fahrenheit / 190°Celsius

Freezing Point No information available

Initial Boiling Point No information available

Physical State Crystalline Powder

pH Mixture approximately 4 to 5; NH4H2PO4: 4.2 in 0.2 molar solution; (NH4)2SO4: 5.5 in 0.1 molar solution

Flash Point None

Auto-ignition Temperature None

Flammability Not Flammable

Flammability/Explosive Limits in Air Upper – No; Lower – No

Explosive Properties None

Oxidizing Properties	None
Volatile Component (%vol)	Not Applicable
Evaporation Rate	No information available
Vapor Density	No information available
Viscosity	No information available

10. Stability and Reactivity

Stability	Stable under recommended storage and handling conditions
Reactivity	No reactivity for these chemicals is expected
Incompatibles	Strong alkalies (bases), magnesium, strong oxidizers, isocyanuric acids and chlorine compounds.
Conditions to Avoid	Storage or handling near incompatibles
Hazardous Decomposition Products	Heat of fire may release carbon monoxide, carbon dioxide, and sulfur dioxide. Also ammonia, oxides of phosphorus and nitrogen oxides may be released during decomposition.
Possibility of Hazardous Reactions	Slight
Hazardous Polymerization	Does not occur

11. Toxicological Information

Likely Routes of Exposure	Inhalation, skin, and eye contact
Symptoms	
Immediate	
Inhalation	Irritation, coughing
Eyes	Irritation
Skin	Irritation
Delayed	Symptoms appear to be relatively immediate
Acute Toxicity	Relatively non-toxic
Chronic Toxicity	
Short-term Exposure	None known
Long-term exposure	As with all dusts, pneumoconiosis, or “dust lung” disease, may result from chronic exposure.
Reproductive Toxicity	This product’s ingredients are not known to have reproductive or teratogenic effects.

12. Ecological Information

Ecotoxicity	Harmful effects to aquatic organisms after long-term exposure. Provides nutrient nitrogen and phosphorus to plant life.

Persistence/Degradability	Degrades rapidly in humid/wet environment
Probability of rapid biodegradation	NH4H2PO4 Est: 0.693 (Rapid); (NH4)2SO4: Est: 0.684 (Rapid)
Anaerobic biodegradation probability	NH4H2PO4 Est: 0.398 (Slow); (NH4)2SO4: Est: 0.398 (Slow)
Bioaccumulation potential	Low
Mobility in soil	Slow evaporation rate; water soluble; may leach to groundwater.
Other Adverse Ecological Effects	No other known effects at this time

Aquatic Toxicity Values – Environment – Estimates

Chemical Name	Acute (LC50)	EC50
Mono-ammonium phosphate	2,91e+07 mg/L Fish 96 hr; 9.4e+06 mg/L Daphnid 48hr;	6.70e+05 mg/L Gr. Algae 96 hr
Ammonium Sulfate	2521 mg/L Fish 96 hr; 1244 mg/L Daphnid 48 hr;	518 mg/L Gr. Algae 96 hr

13. Disposal Considerations

Safe Handling	Use appropriate PPE when handling, and wash thoroughly after handling (see Section 8).
Waste Disposal Considerations	Dispose in accordance with federal, state, and local regulations.
Contaminated Packaging	Dispose in accordance with federal, state, and local regulations.

Notes:

This product is not a RCRA characteristically hazardous or listed hazardous waste. Dispose of according to state or local laws, which may be more restrictive than federal laws or regulations. Used product may be altered or contaminated, creating different disposal considerations.

14. Transport Information

UN Number	NA
UN Proper Shipping Name	NA
Transport Hazard Class	NA
Packing Group	NA
Mareine Pollutant	NO
IATA	Not Regulated
DOT	Not Regulated

Notes:

This product is not defined as a hazardous material under U.S. Department of Transportation (DOT) 49 CFR 172, or by Transport Canada "Transportation of Dangerous Goods" regulations.

Special Precautions for Shipping:

The transportation information above covers the CF-33 Dry Chemical Agent as shipped in bulk containers and not when contained in a dry chemical fire suppression system. If shipped in a stored pressure-type fire suppression system, and pressurized with a non-flammable, non-toxic inert expellant gas, the fire suppression system is considered a hazardous material by the U. S. Department of Transportation and Transport Canada. The proper shipping name shall be FIRE EXTINGUISHER and the UN designation is UN 1044. The DOT hazard class/division is LIMITED QUANTITY when pressurized to less than 241psig and when shipped via highway or rail. UN Class 2.2 Non-Flammable Gas, when shipping via air. Packing Group – N/A.

15. Regulatory Information

International Inventory Status: All ingredients are on the following inventories

Country(ies)	Agency	Status
United States of America	TSCA	Yes
Canada	DSL	Yes
Europe	EINECS/ELINCS	Yes
Australia	AICS	Yes
Japan	MITI	Yes
South Korea	KECL	Yes

European Risk and Safety Phrases		
EU Classification	XN	Irritant
R Phrases	20	Harmful by inhalation
	22	Harmful if swallowed
S Phrases	36/37/38	Irritating to eyes, respiratory system and skin
	22	Do not breath dust
	24/25	Avoid contact with skin and eyes
	26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	36	Wear suitable protective clothing
	37/39	Wear suitable gloves and eye protection

U.S. Federal Regulatory Information

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) – This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. None of the chemicals in this product are under SARA reporting requirements or

have SARA threshold planning quanities (TPQs) or CERCLA reportable quantites (RQs), or are regulated under TSCA 8(d).

SARA 311/312 Hazard Categories:

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
***-Sudden Release of Pressure Hazard**	Yes
Reactive Hazard	No

***- Only applicable if material is in a pressurized fire suppression system unit.**

Clean Water/Clean Air Acts

This product does not contain ny substance regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42) or Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61) and Section 112 of the Clean Air Act Amendments of 1990.

U.S. State Regulatory Information

Chemicals in the product are covered under specific State regulations, as denoted below:

Alaska – Designated Toxic and Hazardous Substance: None

California – Permissible Exposure Limits for Chemical Contaminants: None
California Proposition 65: No component is listed on the California Proposition 65 list.

Florida – Substance List: Mica Dust

Illinois – Toxic Substance List: None

Kansas – Section 302/303 List: None

Massachusetts – Substance List: Mica Dust

Missouri – Employer Information/Toxic Substance List: None

New Jersey – Right to Know Hazardous Substance List: None

North Dakota – List of Hazardous Chemicals, Reportable Quantities: None

Pennsylvania – Hazardous Substance List: None

Rhode Island – Hazardous Substance List: Mica Dust

Texas – Hazardous Substance List: No

West Virginia – Hazardous Substance List: None

Wisconsin – Toxic and Hazardous Substances: None

Other:

Mexico – Grade	No component listed
Canada – WHMIS Hazard Class	Ammonium Sulfate listed as not a dangerous product according to HPR classification criteria.

16. Other Information

This SDS conforms to requirements under U.S., U.K., Canadian, Australian, and EU regulations or standards, and conforms to the proposed 2003 ANSI Z400.1 format.

Issuing Date	01-August-2003
Revision Date	08-May-2018
Revision Notes	None

The Information herein is given in good faith but no warranty, expressed or implied, is made.
Updated by Cody M. Kitterman.