



SAFETY DATA SHEET

Section 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Regular Dry Chemical Extinguishant
 Other Identifiers: Sodium Bicarbonate, SDC
 Product Code(s): CH 511, CH512, CH 541
 Model Codes for Fire Extinguishers: A620,403,408,409,412,447,451,453,457,459,462,468,471,477,482,489,492,496,568,574,582,721,761,782
 Recommended Use: Fire suppression of Class B and C fires
 Not for human or animal drug use.
 Manufacturer: AMEREX CORPORATION
 Internet Address: www.amerex-fire.com
 Address: 7595 Gadsden Highway, P.O. Box 81
 Trussville, AL 35173-0081
 Company Telephone: (205) 655-3271
 E-mail Address: info@amerex-fire.com
 Emergency Contacts: Chemtrec 1(800) 424-9300 or
 (703) 527-3887
 Revised: September 5, 2024; Revision H

Section 2. HAZARDS IDENTIFICATION

GHS – Classification

Hazard Class	Category	Signal Word
Aerosols	Category 3	Warning
Acute Toxicity	Category 5	Warning
Skin Corrosion/Irritation	Category 2	Warning
Sensitization, Skin	None	None
Serious eye damage/eye irritation	Category 2A	Warning
Acute Toxicity, Inhalation	Category 5	Warning
Specific Target Organ Toxicity, Respiratory	Category 3	Warning
Carcinogen	None	None

GHS – Label Symbol(s):



If Pressurized: Gas Under Pressure



GHS – Word(s):

Warning

Other Hazards Not Resulting in Classification: Mica may contain small quantities of quartz (crystalline silica). Prolonged exposure to respirable crystalline silica dust at concentrations exceeding the occupational exposure limits may increase the risk of developing a disabling

lung disease known as silicosis. IARC found limited evidence for pulmonary carcinogenicity of crystalline silica in humans. In the case of normal use of this product, exposure to silica should be nil.

The attapulgite clay used in this product has a fiber length of less than 5µm; therefore, the clay is not considered to be carcinogenic to animals or humans.

GHS – Hazard Phrases

GHS Hazard	GHS Code(s)	Code Phrase(s)
Physical	H229	*Pressurized container; may burst if heated.
Health	H303 315 319 335	May be harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
Environmental	None	
Precautionary:		
General	P101	If medical advice is needed, have product container or label at hand
Prevention	P210 251 261 264 280	*Keep away from heat, hot surface, sparks, open flames, and other ignition sources. *Do not pierce or burn, even after use. Avoid breathing dust. Wash hands and face thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection.
Response	P319 321 340 362 301+317 302+352 304+317 305+351+338 332+317 362+364	Get medical help if you feel unwell. Specific treatment (see Section 4. First Aid Measures). Remove person to fresh air and keep comfortable for breathing. Take off contaminated clothing. IF SWALLOWED: Get medical help. IF ON SKIN: wash with plenty of water IF INHALED: Get medical help. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If skin irritation occurs: Get medical help. Take off contaminated clothing and wash it before reuse.
Storage	403+233 410+403	Store in a well-ventilated place. Keep container tightly closed. *Protect from sunlight. Store in well-ventilated place.
Disposal	P501	Dispose of contents through a licensed disposal company. Contaminated container should be disposed as unused product.

*- Fire extinguishers are designed to be used to extinguish fires.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH Reg. No.	CAS-No.	Weight %
Sodium bicarbonate	205-633-8	Not Available	144-55-8	>92
Attapulgite clay	601-805-5	Not Available	12174-11-7	<5
Sericite Potassium aluminum silicate	310-127-6	Not Available	12001-26-2	<2.5
Silicone oil methyl hydrogen polysiloxane	613-152-3	Not Available	63148-57-2	<0.5

Emergency overview:
Adverse health effects and symptoms:

White fine powder, odorless.
Possibly a mild irritant to the respiratory system and eyes; mild irritant to the skin. Symptoms may include coughing, shortness of breath, and irritation of the lungs, eyes, and skin. Ingestion, although unlikely, may cause gastrointestinal irritation and edema (fluid retention).

Section 4. FIRST AID MEASURES

Eye Exposure:	Causes serious irritation. Irrigate eyes with water and repeat until pain free. Seek medical attention if irritation develops, or if vision changes occur.
Skin Exposure:	Causes 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. Seek medical attention if irritation persists.
Ingestion:	Overdose symptoms may include thirst, nausea, and severe diarrhea and vomiting. 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.
Medical conditions possibly aggravated by exposure:	Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema, or bronchitis. Skin contact may aggravate existing skin disease. Chronic overexposure may cause pneumoconiosis ("dusty lung" disease).

Section 5. FIRE-FIGHTING MEASURES

Flammable Properties:	Not flammable
Flash Point:	Not determined
Suitable Extinguishing Media:	Non-combustible.
Hazardous Combustion Products:	Carbon oxides (including CO ₂ and CO)
<u>Explosion Data:</u>	
Sensitivity to Mechanical Impact:	Not sensitive
Sensitivity to Static Discharge:	Not sensitive

Unusual fire/explosion hazards:	In a fire this material may decompose, releasing oxides of carbon, potassium and nitrogen (see Section 10).
Protective Equipment and Precautions for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand. NIOSH (approved or equivalent) and full protective gear.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation.
Personal Protective Equipment:	Minimum - safety glasses, gloves, and a dust respirator.
Emergency Procedures:	NA
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 wash spill site after material pickup is complete.
Other:	If product is contaminated, use PPE and containment appropriate to the nature of the most toxic chemical/material in the mixture.

Section 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 extinguisher. Prevent falling. Do not allow near heat sources. Contents may be under pressure – inspect extinguisher consistent with product labeling to ensure container integrity.
Incompatible Products:	Do not mix with other extinguishing agents, Incompatible with strong oxidizing agents and strong acids. Do not store in high humidity.
Hazardous Decomposition Products:	Carbon and sodium oxides.
Hazardous Polymerization:	Will not occur.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	OSHA PEL	ACGIH TLV	DFG MAK *	EU BLV
Sodium bicarbonate	PNOC** Total dust, 15 mg/m ³ Respirable fraction, 5 mg/m ³	PNOC** Total dust, 10 mg/m ³ Respirable fraction, 3 mg/m ³	PNOC** Total dust, 4 mg/m ³ Respirable fraction, 1.5 mg/m ³	NA
Attapulgate clay	PNOC** Total dust, 15 mg/m ³ Respirable fraction, 5 mg/m ³	PNOC** Total dust, 10 mg/m ³ Respirable fraction, 3 mg/m ³	PNOC** Total dust, 4 mg/m ³ Respirable fraction, 1.5 mg/m ³	NA
Sericite Potassium aluminum silicate	PNOC** Total dust, 15 mg/m ³ Respirable fraction 50 ug/m ³ Silica	PNOC** Total dust, 15 mg/m ³ Respirable fraction 25 ug/m ³ Silica	PNOC** Total dust, 4 mg/m ³ Respirable fraction, 1.5 mg/m ³	NA
Silicone oil methyl hydrogen polysiloxane	NR***	NR***	NR***	NA

*German 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.

Engineering Controls:

Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment – PPE Code E:

The need for respiratory protection is not probable during short-term exposure. PPE use during production process must be independently evaluated.



Eye/Face Protection:

Skin and Body Protection:

Respiratory Protection:

Wear tightly fitting chemical goggles.

Wear protective gloves/coveralls.

If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn. Use P100 respirators for limited exposure, use air-purifying respirator (APR) with high efficiency particulate air (HEPA) filters for prolonged exposure. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current safety and health

Hygiene Measures:

requirements. The need for respiratory protection is not likely for short-term use in well ventilated areas. Good personal hygiene practice is essential, such as avoiding food, tobacco products, or other hand-to-mouth contact when handling. Wash thoroughly after handling.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White powder, finely divided odorless solid
Molecular Weight:	NaHCO ₃ : 84.01
Odor:	No information available
Odor Threshold:	No information available
Decomposition Temperature °C:	NaHCO ₃ : 50
Freezing Point °C:	Approximately 50 (decomposes to sodium carbonate)
Initial Boiling Point °C:	851
Physical State:	Crystalline Powder
pH:	Approximately 8.3
Flash Point °C:	None
Autoignition Temperature °C:	None
Boiling Point/Range °C:	Not Applicable. Will decompose
Melting Point/Range °C:	Not Applicable
Flammability:	Not Flammable
Flammability Limits in Air °C:	Upper – Not Flammable; Lower-Not Flammable
Explosive Properties:	None
Oxidizing Properties:	None
Volatile Component (%vol)	Not Applicable
Evaporation Rate:	Not Applicable
Vapor Density:	Not Applicable
Vapor Pressure:	Low; Est: 3.73e-09 mmHg
Specific gravity:	NaHCO ₃ : Approximately 1.2 as powder
Solubility:	Product is coated – not immediately soluble in water.
Partition Coefficient:	No Information Available
Viscosity:	Not Applicable

NOTE: NaHCO₃ – Sodium bicarbonate

Section 10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage and handling conditions.
Reactivity:	Reacts exothermically with acids to generate carbon monoxide and carbon dioxide gas. Dangerous reaction with mono-ammonium phosphate and sodium potassium alloys.
Incompatibles:	Avoid contact with oxidizing agents and strong acids. Contact with mono-ammonium phosphate, especially in the presence of water, may cause pressure to build due to the generation of ammonia and carbon dioxide gas; moisture will accelerate this reaction. Sodium potassium alloy can result in a violent reaction with certain extinguishing agents, such as Sodium Bicarbonate. Mixtures of Sodium Bicarbonate with 2-furaldehyde can spontaneously ignite when exposed to air. Sodium Bicarbonate is incompatible with dopamine hydrochloride, pentazocine lactate, aspirin and bismuth salicylate, and many alkali salts.
Conditions to Avoid:	Storage or handling near incompatibles.
Hazardous Decomposition Products:	Carbon, nitrogen, and potassium oxides. Heat of fire may release carbon monoxide.
Possibility of Hazardous Reactions:	None
Hazardous Polymerization	Does not occur

Section 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 "dusty lung" disease, may result from chronic exposure.

Acute Toxicity Values - Health

Chemical Name	LD50		LC50 (Inhalation)
	Oral	Dermal	
Sodium bicarbonate	4220 mg/kg (rat)	>2000 mg/kg (rabbit)	900 mg/m ³ (rat)
Attapulgate clay	None	None	None
Sericite Potassium aluminum silicate	None	None	None
Silicone oil methyl hydrogen polysiloxane	None	None	None

Reproductive Toxicity:

This product's ingredients are not known to have reproductive or teratogenic effects.

Target Organs and Effects (TOST):

Respiratory system (mild irritant).

This product is a mild irritant to epithelial tissue, (eyes, mucous membranes, skin) and may aggravate dermatitis. No information was found indicating the product causes sensitization.

Other Toxicity Categories

Chemical Name	Germ Cell Mutagenicity	Carcinogenicity	Reproductive	TOST Single Exp	TOST Repeated Exp	Aspiration
Sodium bicarbonate	None	None	None	3	None	None
Attapulgate clay	None	None	None	None	Kidney	None
Sericite Potassium aluminum silicate	None	None	None	None	None	None
Silicone oil methyl hydrogen polysiloxane	None	None	None	None	None	None

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity:

Low.

Persistence/Degradability:

Soluble in water; NaHCO₃: 96 g/l at 20 °C.

Probability of rapid biodegradation:

NaHCO₃ Est: 0.718 (Rapid)

Anaerobic biodegradation probability:

NaHCO₃ Est: 0.836 (Rapid)

Bioaccumulation potential:

Low.

Bioconcentration factor:

NaHCO₃ Est: 3.16 L/kg

Mobility in soil:

Slow evaporation rate; water soluble, may leach to groundwater

Log Koc:

NaHCO₃ Est: -2.06

NOTE: NaHCO₃ – Sodium bicarbonate

Other Adverse Ecological Effects:

No other known effects at this time

Aquatic Toxicity Values - Environment

Chemical Name	Acute (LC50)	Chronic (LC50)
Sodium bicarbonate	7700 mg/l (rainbow trout)	4100 mg/l (water flea)
Attapulgate clay	N/A	N/A
Sericite Potassium aluminum silicate	N/A	N/A
Silicone oil methyl hydrogen polysiloxane	N/A	N/A

Aquatic Toxicity Values – Calculated Estimates

Chemical Name	Acute (LC50)	EC50
Sodium bicarbonate	8259 mg/l Fish 96 hr; 3737 mg/l Daphnid 48 hr;	1088 mg/l Gr. Algae 96 hr
Attapulgate clay	N/A	N/A
Sericite Potassium aluminum silicate	N/A	N/A
Silicone oil methyl hydrogen polysiloxane	N/A	N/A

Section 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.

Section 14. TRANSPORT INFORMATION

UN Number:	NA
UN Proper Shipping Name:	NA
Transport Hazard Class:	NA
Packing Group:	NA
Marine Pollutant?:	NO

See current applicable transport regulations (DOT - Ground, IATA – Air, IMDG – Maritime) prior to shipping.

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 Regular Dry Chemical extinguisher as shipped in bulk containers and not when contained in fire extinguishers or fire extinguisher systems. If shipped in a stored pressure-type fire extinguisher, and pressurized with a non-flammable, non-toxic inert expellant gas, the fire extinguisher is considered a hazardous material by the US 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 241 psig and when shipped via highway or rail. UN Class 2.2. Non-Flammable Gas, when shipping via air. Packing Group – N/A

Section 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

REACH Title VII Restrictions: No information available

Chemical Name	Dangerous Substances	Organic Solvents	Harmful Substances Whose Names Are to be Indicated on Label	Pollution Release and Transfer Registry (Class II)	Pollution Release and Transfer Registry (Class I)	Poison and Deleterious Substances Control Law
Sodium bicarbonate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Attapulgite clay	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Sericite Potassium aluminum silicate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Silicone oil methyl hydrogen polysiloxane	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Component	ISHA – Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA – Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) – Toxic Chemicals	Toxic Release Inventory (TRI) – Group I	Toxic Release Inventory (TRI) – Group II
Sodium bicarbonate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Attapulgite clay	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Sericite Potassium aluminum silicate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Silicone oil methyl hydrogen polysiloxane	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

European Risk and Safety phrases:

EU Classification:	XN	Irritant
R Phrases:	20 36/37	Harmful by inhalation. Irritating to eyes, respiratory system.
S Phrases:	22 24/25 26 36	Do not breath dust. Avoid contact with skin and eyes In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

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 and 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 quantities (TPQs) or CERCLA reportable quantities (RQs), or are regulated under TSCA 8(d).

SARA 311/312 Hazard Categories:

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

* - Only applicable if material is in a pressurized extinguisher.

Clean Water/Clean Air Acts:

This product does not contain any substances 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 this product are covered under specific State regulations, as denoted below:

- Alaska** - Designated Toxic and Hazardous Substances: None
- California** – Permissible Exposure Limits for Chemical Contaminants: None
- Florida** – Substance List: Mica Dust
- Illinois** – Toxic Substance List: None
- Kansas** – Section 302/303 List: None
- Massachusetts** – Substance List: Mica Dust
- Minnesota** – List of Hazardous Substances: None
- 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: None
- West Virginia** – Hazardous Substance List: None
- Wisconsin** – Toxic and Hazardous Substances: None

California Proposition 65: No component is listed on the California Proposition 65 list.

Other:

- | | |
|-----------------------------|---------------------|
| Mexico – Grade | No component listed |
| Canada – WHMIS Hazard Class | No component listed |

Section 16. OTHER INFORMATION

This information sheet complies with the requirements of US, UK, Canadian, Australian and European regulations or standards, and conforms to the proposed format, ANSI Z400.1, 2003. No modification of this safety data sheet is permitted by AMEREX Corporation. Questions or comments should be directed to AMEREX Corporation (see section 1).

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|----------------|------------------------------|
| Issuing Date | 17-June-2012 |
| Revision Date | 9-September-2024; Revision H |
| Revision Notes | None |

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