

**STRIKE FIRST**  
CORPORATION

# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

**Product Name** SF-ABC90 DRY CHEMICAL POWDER

### Other means of identification

**Synonyms** Multi-purpose Dry Chemical

### Recommended use of the chemical and restrictions on use

**Recommended Use** Fire Suppression

**Uses advised against** Not for human or animal drug use

### Details of the Supplier of the Safety Data Sheet

**Extinguisher Manufacturer** STRIKE FIRST CORPORATION  
777 Tapscott Rd. Toronto Ontario  
M1X 1A2

**Contact Information** Phone: (416) 299-7767  
Fax: (416) 299-8039  
Email: [info@strike-first.com](mailto:info@strike-first.com)

**Chemical Supplier Name** SUZHOU WUYUE SYNTHETIC FIRE SCI-TECH CO., LTD.  
EQUIPMENT LTD.

**Supplier Address** No. 10 KANGJIAN ROAD, MUDU TOWN, SUZHOU CITY  
JIANGSU, P. R. CHINA

**Supplier Contact Numbers** Phone: +86-512-66360365 / 66662314  
Fax: +86-512-66262360  
Email: [sales@wuyuefire.com](mailto:sales@wuyuefire.com)

**Emergency Telephone Number** CHEMTREC 1-800-424-9300 or  
(703) 527-3887

## 2. HAZARDS IDENTIFICATION

This SDS covers the products as sold in pressurized and non-pressurized containers. GHS classifications for both are listed below.

### Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**GHS Label elements, including precautionary statements**

<b><u>Hazard Symbol</u></b>	<b><u>Signal Word</u></b>	<b><u>Hazard Statement</u></b>
	<b><u>Warning</u></b>	<u>Contents under pressure. may explode if heated</u>
	<b><u>Warning</u></b>	<u>May cause skin, eye or respiratory irritation</u>

**Emergency Overview**

The product contains no substances which at their concentration, are considered to be hazardous to health.

**Appearance** Light Yellow      **Physical State** Powder(s) Solid      **Odor** Odorless

**Precautionary Statements**

None

**- Prevention**

**Precautionary Statements**

None

**- Response**

**Precautionary Statements**

None

**- Storage**

**Precautionary Statements**

None

**- Disposal**

**Hazards not otherwise classified (HNOC)**

Not applicable

**Unknown Toxicity**

None

**Other information**

Maybe harmful if swallowed

May cause slight eye irritation

**Interactions with Other Chemicals**

No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Synonyms**

MULTI-PURPOSE DRY CHEMICAL

Chemical Name	CAS No	Weight - %
Mono Ammonium Phosphate	7722-76-1	90.0 +/-2.0
Mica	12001-26-2	<5.0
Methyl H Polysiloxane	63148-57-2	<1.0

#### 4. FIRST AID MEASURES

**First aid measures**

Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.
Skin contact	Wash with soap and water.
Inhalation	Remove to fresh air. If symptoms persist, call a physician.
Ingestion	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed**

**Most Important Symptoms and Effects**      No information available.

**Indication of any immediate medical attention and special treatment if needed**

**Notes to Physician**      Treat symptomatically

#### 5. FIRE FIGHTING MEASURES

**Flammable Properties**      Not Available

**Extinguishing Media**

Suitable extinguishing media	Water spray, dry chemical powder, carbon dioxide or appropriate foam.
Unsuitable extinguishing media	Not available

**Firefighting equipment/instructions**

In case of fire and/or explosion, avoid inhaling fumes. Use protective respirator with independent air supply. According to the size of fire, use full protection if necessary.

Dispose used water according to local regulations.

**Hazardous Combustible Products**

Emits toxic fumes under fire conditions.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHS/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

#### Personal precautions

Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid contact with skin and eyes. For personal protection, see Section 8.

#### Environmental precautions

Avoid disposing into drainage/sewer system or directly into the aquatic environment.

### Methods and material for containment and cleaning up

#### Methods for containment

Prevent further leakage or spillage if safe to do so.

#### Methods for cleaning up

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### Handling

Ensure good ventilation/exhaustion at the work place. Wash thoroughly After handling.

### Conditions for safe storage, including any incompatibilities

#### Storage

Store in a cool dry place. Store in a cool, dry, well ventilated area away from incompatible substances. Keep away from alkaline materials. Keep containers tightly closed.

#### Incompatible Products

Alkaline materials, strong oxidizing agents. Strong acids. Chlorinated compounds.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

#### Exposure Guidelines

Components	US. OSHA PEL TABLE Z-3 (29 CFR 1910.1000)	US. ACGIH TLV	US. NIOSH IDLH: Pocket Guide to Chemical Hazards
Mica 12001-26-2	TWA: 20 mppcf	TWA: 3 mg/m <sup>3</sup> Respirable fraction	TWA: 3 mg/m <sup>3</sup> Respirable

ACGIH TLV: American Conference of Government Industrial Hygienist – Threshold Limit Value

OSHA PEL: Occupational Safety and Health Administration – Permissible Exposure Limits

NIOSH IDLH Immediately Dangerous to Life or Health

**Biological Limit Values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Use in a well-ventilated area.

**Engineering measures**Showers  
Eyewash stations  
Ventilation systems**Individual protection measures, such as personal protective equipment****Eye/face protection**

Chemical safety goggles.

**Skin and body protection**

Wear appropriate protective clothing and gloves to prevent skin exposure.

**Respiratory protection**

Government approved respirator.

**Hygiene measures**

Wash hand, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical and Chemical Properties****Physical state**

Solid

**Appearance**

Powder

**Odor**

Odorless

**Color**

Yellow

**Odor Threshold**

No information available

**Property****Values****Remarks Method****Ph**4.0 – 4.5 (1%  
solution)

None known

**Melting / Freezing point**

&gt;100 °C

None known

**Boiling point /boiling range**

No data available

None known

**Flash point**

No data available

None known

**Evaporation rate**

No data available

None known

**Flammability (solid, gas)**

No data available

None known

**Flammability limit in air****Upper flammability limit**

Not flammable

**Lower flammability limit**

Not Flammable

**Vapor pressure**

No data available

None known

**Relative density**

~1.9 (@25 °C)

None known

**Specific gravity**

No data available

None known

**Water solubility**>90% after several  
hours (20 °C)

None known

**Solubility in other solvents**

No data available

None known

**Partition coefficient: n-octanol/water**

No data available

None known

**Decomposition temperature**

No data available

None known

**Kinematic viscosity**

No data available

None known

**Dynamic viscosity**

No data available

None known

**Explosive properties**

No data available

None known

**Oxidizing properties**

No data available

None known

**Other information**

<b>Softening point</b>	No data available
<b>VOC content (%)</b>	No data available
<b>Particle size</b>	No data available
<b>Particle size distribution</b>	No data available

<b>10. STABILITY AND REACTIVITY</b>
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<b><u>Reactivity</u></b>	No data available.
<b><u>Chemical stability</u></b>	Material is stable under normal conditions.
<b><u>Possibility of Hazardous Reactions</u></b>	No dangerous reactions known.
<b><u>Hazardous Polymerization</u></b>	Hazardous polymerization does not occur.
<b><u>Conditions to avoid</u></b>	Incompatible materials. Humidity
<b><u>Incompatible materials</u></b>	Strongly caustic material.
<b><u>Hazardous Decomposition Products</u></b>	Ammonia (>100 °C), In case of use of the material on fire, release toxic gas: NH <sub>3</sub> .

<b>11. TOXICOLOGICAL INFORMATION</b>
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**Information on likely routes of exposure**

<b><u>Inhalation</u></b>	May cause irritation of respiratory tract.
<b><u>Eye contact</u></b>	Contact with eyes may cause irritation.
<b><u>Skin contact</u></b>	May cause irritation.
<b><u>Ingestion</u></b>	Specific test data for the substance or mixture is not available

**Toxicokinetics, metabolism and distribution:**

**Non-human toxicological information**      Not available

**Information on toxicological effects:**

**Acute toxicity:**

**Mono ammonium phosphate (CAS# 7722-76-1):**

<b>LD50 (Oral, Rat):</b>	> 2,000 mg/kg bw
<b>LD50 (Dermal, Rat):</b>	> 5,000 mg/kg bw
<b>LC50 (Inhalation, Rat):</b>	> 5 mg/L air, 4h

<b>Skin Corrosion/irritation</b>	Not classified
<b>Serious Eye damage/irritation</b>	Not classified
<b>Respiratory or skin sensitization</b>	Not classified
<b>Germ cell mutagenicity</b>	Not classified
<b>Carcinogenicity</b>	Not classified
<b>Reproductive toxicity</b>	Not classified
<b>STOT – single exposure</b>	Not classified
<b>STOT – repeated exposure</b>	Not classified
<b>Aspiration Hazard</b>	Not classified

## 12. ECOLOGICAL INFORMATION

### Toxicity

Mono ammonium phosphate (CAS# 7722-26-1):

Chemical Name	Acute Toxicity		Time	Species	Method	Evaluation	Remarks
Mono Ammonium Phosphate	EC50	>85.9 mg/L	96h	Fish	OECD 203	N/A	N/A
	EC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
	EC50	>97.1 mg/L	72h	Algae	OECD 201	N/A	N/A

**Persistence Degradability** Not available

**Bioaccumulation Potential** Not available

**Mobility in soil** Not available

**Result of PBT & PVB assesment** Not available

**Other adverse effects** No known significant effects or critical hazards

## 13. DISPOSAL INFORMATION

### Waste treatment methods

#### **Disposal methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261. To determine whether the altered material is a hazardous waste. consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Since emptied containers may retain product residue, follow label warnings even after the container is emptied. Dispose of contents/containers in accordance with local regulations.

<b>14. TRANSPORTATION INFORMATION</b>
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<b>BASIC REQUIREMENTS</b>	<b>DOT</b>	<b>IATA</b>	<b>IMDG</b>
<b>UN Number</b>	Not regulated	Not regulated	Not regulated
<b>Proper Shipping Name</b>	Not regulated	Not regulated	Not regulated
<b>Hazard Class</b>	Not regulated	Not regulated	Not regulated
<b>Packing Group</b>	Not regulated	Not regulated	Not regulated
<b>Environmental Hazards</b>	No	No	No

**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:**

If shipped in a stored pressure-type fire extinguisher, and pressurized with a non-flammable, nontoxic 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 is **Limited Quantity** when shipped via highway or rail. Use a **Non-Flammable Gas** label (class 2.2) when shipping via air.

<b>15. REGULATORY INFORMATION</b>
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**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
Not regulated

**CERCLA Hazardous Substance List (40 CFR 302.4)**  
Not Listed

**SARA 304 Emergency Release Notification**  
Not Regulated

**OSHA Specialty Regulated Substances (29 CFR 1910.1001-1050)**  
Not regulated

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely Hazardous Substance**  
Not Listed

**SARA 313 (TRI reporting)**

<b>Chemical Name</b>	<b>CAS Number</b>	<b>% by Weight</b>
<b>Mono ammonium phosphate</b>	<b>7722-76-1</b>	<b>90.0 +/-2.0</b>

**Other Federal Regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPS) List**

Not regulated

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated

**Safe Drinking Water Act (SDWA)**

Not regulated

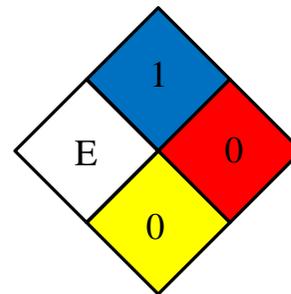
**16. OTHER INFORMATION**

NFPA	<b>Health Hazards</b>	1	<b>Flammability</b>	0	<b>Instability</b>	0	<b>Physical and Chemical Hazards – Personal Protection</b>
HMIS	<b>Health Hazards</b>	1	<b>Flammability</b>	0	<b>Instability</b>	0	X

**Prepared By** Strike First Corporation  
777 Tapscott Road  
Scarborough ON  
M1X 1A2 Canada

**Revision Date** Jan. 11, 2021

**Revision Note** Updated to current year



**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of this publication. This information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the test.

**END OF SAFETY DATA SHEET**

**STRIKE FIRST**  
CORPORATION

# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

**Product Name** ABC SUPER 90 DRY CHEMICAL

### Other means of identification

**Synonyms** Multi-purpose Dry Chemical

### Recommended use of the chemical and restrictions on use

**Recommended Use** Fire Suppression

**Uses advised against** Not for human or animal drug use

### Details of the Supplier of the Safety Data Sheet

**Extinguisher Manufacturer** STRIKE FIRST CORPORATION  
777 Tapscott Rd. Toronto Ontario  
M1X 1A2

**Contact Information** Phone: (416) 299-7767  
Fax: (416) 299-8039  
Email: [info@strike-first.com](mailto:info@strike-first.com)

**Chemical Supplier Name** STEEL FIRE EQUIPMENT LTD.

**Supplier Address** 150 SUPERIOR BLVD. MISSISSAUGA ON  
L52 2L2 CANADA

**Supplier Contact Numbers** Phone: (905) 564-1500  
Fax: (905) 564-0008  
Email: [sales@steelfire.com](mailto:sales@steelfire.com)

**Emergency Telephone Number** CHEMTREC 1-800-424-9300 or  
(703) 527-3887

## 2. HAZARDS IDENTIFICATION

This SDS covers the products as sold in pressurized and non-pressurized containers. GHS classifications for both are listed below.

### Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**GHS Label elements, including precautionary statements**

<b><u>Hazard Symbol</u></b>	<b><u>Signal Word</u></b>	<b><u>Hazard Statement</u></b>
	<b><u>Warning</u></b>	<u>Contents under pressure, may explode if heated</u>
	<b><u>Warning</u></b>	<u>May cause skin, eye or respiratory irritation</u>

**Emergency Overview**

The product contains no substances which at their concentration, are considered to be hazardous to health.

**Appearance** Light Yellow      **Physical State** Powder(s) Solid      **Odor** Odorless

**Precautionary Statements**

None

**- Prevention****Precautionary Statements**

None

**- Response****Precautionary Statements**

None

**- Storage****Precautionary Statements**

None

**- Disposal****Hazards not otherwise classified (HNOC)**

Not applicable

**Unknown Toxicity**

1.2% of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

Maybe harmful if swallowed  
 May cause slight eye irritation

**Interactions with Other Chemicals**

No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms** MULTI-PURPOSE DRY CHEMICAL

Chemical Name	CAS No	Weight - %	Trade Secret
Ammonium Sulfate	7783-20-2	1 – 5	*
Fullers Earth	8031-18-3	1 – 5	*
Mica	12001-26-2	1 – 5	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret

### 4. FIRST AID MEASURES

**First aid measures**

Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.
Skin contact	Wash with soap and water.
Inhalation	Remove to fresh air. If symptoms persist, call a physician.
Ingestion	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed**

**Most Important Symptoms and Effects** No information available.

**Indication of any immediate medical attention and special treatment if needed**

**Notes to Physician** Treat symptomatically

### 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**

No information available.

**Uniform Fire Code** COMBUSTIBLE DUST/POWDER

**Hazardous Combustion Products**

Carbon oxides.

**Explosion Data**

**Sensitivity to Mechanical Impact** No.

**Sensitivity to Static Discharge** No.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHS/NIOSH (approved p or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

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

**Personal precautions** Avoid contact with skin, eyes or clothing.

**Environmental precautions**

**Environmental precautions** Refer to protective measures listed in Sections 7 & 8.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Avoid generation of dust. Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust. Pick up and transfer to properly labeled containers. After cleaning flush away traces of water.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, or clothing. Wash thoroughly after handling.

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

**Storage** Keep container tightly closed. Keep/store only in original container.

**Incompatible Products** Strong oxidizing agents. Strong acids. Chlorinated compounds. Sodium hypochlorite.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Mica 12001-26-2	TWA: 3 mg/m <sup>3</sup>	TWA: 20mppcf (<1% crystalline silica) 3 mg/m <sup>3</sup> (vacated)	IDLH: 1500mg/m <sup>3</sup> containing <1% quartz TWA: 3 mg/m <sup>3</sup> respirable dust

ACGIH TLV: American Conference of Government Industrial Hygienist – Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration – Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

**Appropriate engineering controls**

<b>Engineering measures</b>	Showers Eyewash stations Ventilation systems
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**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Wear safety glasses with side shield (or goggles).
<b>Skin and body protection</b>	Wear protective gloves and protective clothing.
<b>Respiratory protection</b>	No protective equipment is needed under normal conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Effective dust mask.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical and Chemical Properties**

<b>Physical state</b>	Powder (s)	<b>Odor</b>	Odorless
<b>Appearance</b>	Light Yellow	<b>Odor Threshold</b>	No information available
<b>Color</b>	Light Yellow		

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks</u></b>	<b><u>Method</u></b>
<b>Ph</b>	4 – 5	None known	
<b>Melting / Freezing point</b>	190 C	None known	
<b>Boiling point /boiling range</b>	No data available	None known	
<b>Flash point</b>	No data available	None known	
<b>Evaporation rate</b>	No data available	None known	
<b>Flammability (solid, gas)</b>	No data available	None known	
<b>Flammability limit in air</b>			
<b>Upper flammability limit</b>	Not flammable		
<b>Lower flammability limit</b>	Not Flammable		
<b>Vapor pressure</b>	No data available	None known	
<b>Vapor density</b>	No data available	None known	
<b>Specific gravity</b>	0.85	None known	
<b>Water solubility</b>	>33g/100ml	None known	
<b>Solubility in other solvents</b>	No data available	None known	
<b>Partition coefficient: n-octanol/water</b>	0	None known	
<b>Decomposition temperature</b>	100 – 120 C	None known	
<b>Kinematic viscosity</b>	No data available	None known	
<b>Dynamic viscosity</b>	0		
<b>Explosive properties</b>	No data available		
<b>Oxidizing properties</b>	No data available		

**Other information**

<b>Softening point</b>	No data available
<b>VOC content (%)</b>	No data available
<b>Particle size</b>	No data available
<b>Particle size distribution</b>	

<b>10. STABILITY AND REACTIVITY</b>
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**Reactivity**

No data available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

Incompatible materials.

**Incompatible materials**

Strong oxidizing agents. Strong acids. Chlorinated compounds. Sodium hypochlorite.

**Hazardous Decomposition Products**

Carbon oxides. Nitrogen oxides (NOx). Potassium oxides.

<b>11. TOXICOLOGICAL INFORMATION</b>
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**Information on likely routes of exposure**

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye contact</b>	Contact with eyes may cause irritation.
<b>Skin contact</b>	May cause irritation.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available

**Component Information**

<b>Chemical Name</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
Ammonium Sulfate 7783-20-2	= 2840mg/kg (Rat)	-	-

**Information on toxicological effects**

**Symptoms** No information available

**Delayed and immediate effects as well as chronic effects from short and long term exposure**

**Sensitization** No information available.

<b>Mutagenic Effects</b>	No information available.
<b>Carcinogenicity</b>	Contains no ingredient listed as carcinogen.
<b>Reproductive toxicity</b>	No information available.
<b>STOT – single exposure</b>	No information available.
<b>STOT – repeated exposure</b>	No information available.
<b>Chronic Toxicity</b>	No known effect based on information supplied. Carcinogenic potential is unknown.
<b>Target Organ Effects</b>	None known.
<b>Aspiration Hazard</b>	No information available.

**Numerical measures of toxicity    Product Information**

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)**

4,350.00 mg/kg

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Harmful to aquatic life with long lasting effect

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to microorganisms	Daphnia Magna (Water Flea)
Ammonium Sulfate		96h LC50: = 250mg/l (Brachydanio rerio) 96h LC50: = 480mg/L (Brachydanio rerio) 96h LC50: = 32.2 – 41.2 mg/L (Oncorhynchus mykiss) 96h LC50: = 18mg/L (Cyprinus carpio) 96h LC50: = 420mg/L (Brachydanio rerio) 96h LC50: 5.2 – 8.2mg/L (Oncorhynchus mykiss) 96h LC50: = >100mg/L (Phimephales promelas) 96h LC50: 122 – 128mg/L (Poecilia reticulata) 96h LC50: 460 – 1000mg/L (Leiciscus idus)		

**Persistence Degradability**

Degrades rapidly in humid/wet environment.

**Bioaccumulation**

<b>Chemical Name</b>	<b>Log Pow</b>
Ammonium Sulfate 7783-20-2	-5.1

**Other adverse effects**

No information available

### 13. DISPOSAL INFORMATION

**Waste treatment methods****Disposal methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261. To determine whether the altered material is a hazardous waste, consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Dispose of contents/containers in accordance with local regulations.

### 14. TRANSPORTATION INFORMATION

**DOT**  
**Proper Shipping Name** NOT REGULATED  
**Hazard Class** NON REGULATED  
 N/A

**TDG** Not Regulated

**MEX** Not Regulated

**ICAO** Not Regulated

**IATA**  
**Proper Shipping Name** Not Regulated  
**Hazard Class** NON REGULATED  
 N/A

**IMDG/IMO**  
**Hazard Class** Not Regulated  
 N/A

**IRD** Not Regulated

**ADR** Not Regulated

**ADN** 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:**

If shipped in a stored pressure-type fire extinguisher, and pressurized with a non-flammable, nontoxic

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 is Limited Quantity when shipped via highway or rail. Use a Non-Flammable Gas label (class 2.2) when shipping via air.

## 15. REGULATORY INFORMATION

### International Inventories

TSCA Complies  
 DSL All components are listed either on the DSL or NDSL.

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of Federal Regulations, Part 372.

Chemical Name	CAS No	Weight - %	SARA 313 – Threshold Values %
Ammonium Sulfate	7783-20-2	1 - 5	1.0

#### **SARA 313/312 Hazard Categories**

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

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

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substance under the Comprehensive Environmental Response and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to release of this material.

### US State Regulations

#### **California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Butanamide, 2,2' -[3,3' -dichloro[1,1' -biphenyl]-4,4' -diyl - 5468-75-7	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Mono Ammonium Phosphate 7722-76-1				X	
Ammonium Sulfate 7783-20-2		X	X	X	
Mica 12001-26-2	X	X	X		
Silica, amorphous, precipitated and gel 112926-00-8	X	X	X		

**International Regulations****Mexico****National occupational exposure limits**

Component	Carcinogen Status	Exposure Limits
Mica 12001-26-2 (1 – 5)		Mexico: TWA=3 mg/m <sup>3</sup>

Mexico – Occupational Exposure Limits - Carcinogens

**Canada****WHMIS Hazard Class**

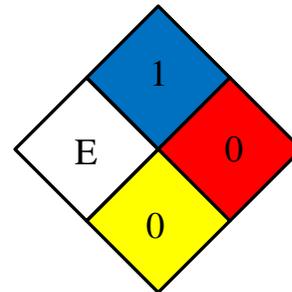
Not Determined

**16. OTHER INFORMATION**

NFPA	Health Hazards	1	Flammability	0	Instability	0	Physical and Chemical Hazards – Personal Protection
HMIS	Health Hazards	1	Flammability	0	Instability	0	X

Prepared By                    **Strike First Corporation**  
**777 Tapscott Road**  
**Scarborough ON**  
**M1X 1A2 Canada**

Revision Date                 **January 11, 2021**  
Revision Note                 **Update to current year**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of this publication. This information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the test.

**END OF SAFETY DATA SHEET**



# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

**Product Name** STEEL FIRE ® SODIUM BICARBONATE BASE (BC) DRY CHEMICAL MODEL 754 (Part No. SF-SB)

### Other means of identification

**Synonyms** Sodium Bicarbonate, SDC

### Recommended use of the chemical and restrictions on use

**Recommended Use** Fire Suppression

**Uses advised against** Not for human or animal drug use

### Details of the Supplier of the Safety Data Sheet

**Extinguisher Manufacturer** STRIKE FIRST CORPORATION  
777 Tapscott Rd. Toronto Ontario  
M1X 1A2

**Contact Information** Phone: (416) 299-7767  
Fax: (416) 299-8039  
Email: [info@strike-first.com](mailto:info@strike-first.com)

**Chemical Supplier Name** STEEL FIRE EQUIPMENT LTD.

**Supplier Address** 150 SUPERIOR BLVD. MISSISSAUGA ON  
L52 2L2 CANADA

**Supplier Contact Numbers** Phone: (905) 564-1500  
Fax: (905) 564-0008  
Email: [sales@steelfire.com](mailto:sales@steelfire.com)

**Emergency Telephone Number** CHEMTREC 1-800-424-9300 or  
(703) 527-3887

## 2. HAZARDS IDENTIFICATION

This SDS covers the products as sold in pressurized and non-pressurized containers. GHS classifications for both are listed below.

### Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**GHS Label elements, including precautionary statements**

<b><u>Hazard Symbol</u></b>	<b><u>Signal Word</u></b>	<b><u>Hazard Statement</u></b>
	<b><u>Warning</u></b>	<u>Contents under pressure. may explode if heated</u>
	<b><u>Warning</u></b>	<u>May cause skin, eye or respiratory irritation</u>

**Emergency Overview**

The product contains no substances which at their concentration, are considered to be hazardous to health.		
<b><u>Appearance</u></b>	White	<b><u>Physical State</u></b>
		Powder(s) Solid
		<b><u>Odor</u></b>
		Odorless

**Precautionary Statements**

None

**- Prevention**

**Precautionary Statements**

None

**- Response**

**Precautionary Statements**

None

**- Storage**

**Precautionary Statements**

None

**- Disposal**

**Hazards not otherwise classified (HNOC)**

Not applicable

**Unknown Toxicity**

2.08% of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

Maybe harmful if swallowed

Harmful to aquatic life with long lasting effects

May cause slight eye irritation

**Interactions with Other Chemicals**

No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms** SODIUM BICARBONATE, SDC

Chemical Name	CAS No	Weight - %	Trade Secret
Fullers Earth	8031-18-3	1 – 5	*
Mica	12001-26-2	1 – 5	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret

### 4. FIRST AID MEASURES

#### First aid measures

Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.
Skin contact	Wash with soap and water.
Inhalation	Remove to fresh air. If symptoms persist, call a physician.
Ingestion	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person.

#### Most important symptoms and effects, both acute and delayed

#### Most Important Symptoms and Effects

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 may cause gastrointestinal irritation and edema.

#### Indication of any immediate medical attention and special treatment if needed

**Notes to Physician** Treat symptomatically

### 5. FIRE FIGHTING MEASURES

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

#### Specific hazards arising from the chemical

No information available.

**Uniform Fire Code** COMBUSTIBLE DUST/POWDER

#### Hazardous Combustion Products

Carbon oxides.

#### **Explosion Data**

**Sensitivity to Mechanical Impact** No.

**Sensitivity to Static Discharge** No.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHS/NIOSH (approved p or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

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

**Personal precautions** Avoid contact with skin, eyes or clothing.

**Environmental precautions**

**Environmental precautions** Refer to protective measures listed in Sections 7 & 8.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Avoid generation of dust. Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust. Pick up and transfer to properly labeled containers. After cleaning flush away traces of water.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, or clothing. Wash thoroughly after handling.

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

**Storage** Keep container tightly closed. Keep/store only in original container.

**Incompatible Products** Strong oxidizing agents. Strong acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Mica 12001-26-2	TWA: 3 mg/m <sup>3</sup>	TWA: 20mppcf (<1% crystalline silica) 3 mg/m <sup>3</sup> (vacated)	IDLH: 1500mg/m <sup>3</sup> containing <1% quartz TWA: 3 mg/m <sup>3</sup> respirable dust

*ACGIH TLV: American Conference of Government Industrial Hygienist – Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration – Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health*

**Appropriate engineering controls**

<b>Engineering measures</b>	Showers Eyewash stations Ventilation systems
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**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Wear safety glasses with side shield (or goggles).
<b>Skin and body protection</b>	Wear protective gloves and protective clothing.
<b>Respiratory protection</b>	No protective equipment is needed under normal conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Effective dust mask.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical and Chemical Properties**

<b>Physical state</b>	Powder (s)	<b>Odor</b>	Odorless
<b>Appearance</b>	White	<b>Odor Threshold</b>	No information available
<b>Color</b>	White		

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks</u></b>	<b><u>Method</u></b>
<b>Ph</b>	Approx. 8.3	None known	
<b>Melting / Freezing point</b>	Approx. 50 °C	None known	
<b>Boiling point /boiling range</b>	No data available	None known	
<b>Flash point</b>	No data available	None known	
<b>Evaporation rate</b>	No data available	None known	
<b>Flammability (solid, gas)</b>	No data available	None known	
<b>Flammability limit in air</b>			
<b>Upper flammability limit</b>	Not flammable		
<b>Lower flammability limit</b>	Not Flammable		
<b>Vapor pressure</b>	Low Est 3.73e-09mmHg	None known	
<b>Vapor density</b>	No data available	None known	
<b>Specific gravity</b>	Approx. 2.2	None known	
<b>Water solubility</b>	Not immediately soluble in water	None known	
<b>Solubility in other solvents</b>	No data available	None known	
<b>Partition coefficient: n-octanol/water</b>	0	None known	
<b>Decomposition temperature</b>	No data available	None known	
<b>Kinematic viscosity</b>	No data available	None known	
<b>Dynamic viscosity</b>	0		
<b>Explosive properties</b>	No data available		

**Oxidizing properties** No data available

**Other information**

**Softening point** No data available

**VOC content (%)** No data available

**Particle size** No data available

**Particle size distribution**

## 10. STABILITY AND REACTIVITY

**Reactivity**

Reacts exothermically with acids to generate non-toxic carbon dioxide gas.  
Dangerous reaction with mono-ammonium phosphate  
and sodium potassium alloys

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

Incompatible materials.

**Incompatible materials**

Strong oxidizing agents. Strong acids.

**Hazardous Decomposition Products**

Carbon oxides. Nitrogen oxides (NOx). Potassium oxides.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Inhalation** May cause irritation of respiratory tract.

**Eye contact** Contact with eyes may cause irritation.

**Skin contact** May cause irritation.

**Ingestion** Specific test data for the substance or mixture is not available

**Component Information**

**Information on toxicological effects**

**Symptoms** No information available

**Delayed and immediate effects as well as chronic effects from short and long term exposure**

**Sensitization** No information available.

<b>Mutagenic Effects</b>	No information available.
<b>Carcinogenicity</b>	Contains no ingredient listed as carcinogen.
<b>Reproductive toxicity</b>	No information available.
<b>STOT – single exposure</b>	No information available.
<b>STOT – repeated exposure</b>	No information available.
<b>Chronic Toxicity</b>	No known effect based on information supplied.
<b>Target Organ Effects</b>	None known.
<b>Aspiration Hazard</b>	No information available.

#### **Numerical measures of toxicity    Product Information**

The following values are calculated based on chapter 3.1 of the GHS document

#### **ATEmix (oral)**

3,282.00 mg/kg

## **12. ECOLOGICAL INFORMATION**

#### **Ecotoxicity**

Harmful to aquatic life with long lasting effect

#### **Persistence Degradability**

Soluble in water, NaHCO<sub>3</sub>: 96g/l @20 °C.

#### **Bioaccumulation**

No information available

#### **Other adverse effects**

No information available

## **13. DISPOSAL INFORMATION**

#### **Waste treatment methods**

#### **Disposal methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261. To determine whether the altered material is a hazardous waste. consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Dispose of contents/containers in accordance with local regulations.

**14. TRANSPORTATION INFORMATION**

<b><u>DOT</u></b>	NOT REGULATED
<b>Proper Shipping Name</b>	NON REGULATED
<b>Hazard Class</b>	N/A

<b><u>TDG</u></b>	Not Regulated
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<b><u>MEX</u></b>	Not Regulated
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<b><u>ICAO</u></b>	Not Regulated
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<b><u>IATA</u></b>	Not Regulated
<b>Proper Shipping Name</b>	NON REGULATED
<b>Hazard Class</b>	N/A

<b><u>IMDG/IMO</u></b>	Not Regulated
<b>Hazard Class</b>	N/A

<b><u>IRD</u></b>	Not Regulated
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<b><u>ADR</u></b>	Not Regulated
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<b><u>ADN</u></b>	Not Regulated
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**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:**

If shipped in a stored pressure-type fire extinguisher, and pressurized with a non-flammable, nontoxic 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 is Limited Quantity when shipped via highway or rail. Use a Non-Flammable Gas label (class 2.2) when shipping via air.

**15. REGULATORY INFORMATION****International Inventories**

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List

**US Federal Regulations**

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of Federal Regulations, Part 372.

**SARA 313/312 Hazard Categories**

<b>Acute Hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release Hazard-*</b>	Yes
<b>Reactive Hazard</b>	No

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

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substance under the Comprehensive Environmental Response and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to release of this material.

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Mica 12001-26-2	X	X	X		

**International Regulations**

**Mexico**

**National occupational exposure limits**

Component	Carcinogen Status	Exposure Limits
Mica 12001-26-2 (1 – 5)		Mexico: TWA=3 mg/m <sup>3</sup>

Mexico – Occupational Exposure Limits - Carcinogens

**Canada**

**WHMIS Hazard Class**

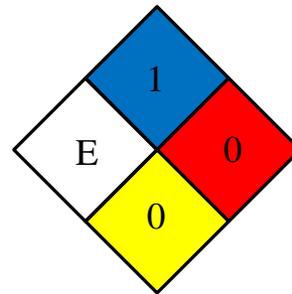
Not Determined

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b>	<b>1</b>	<b>Flammability</b>	<b>0</b>	<b>Instability</b>	<b>0</b>	<b>Physical and Chemical Hazards – Personal Protection</b>
<b>HMIS</b>	<b>Health Hazards</b>	<b>1</b>	<b>Flammability</b>	<b>0</b>	<b>Instability</b>	<b>0</b>	<b>X</b>

**Prepared By**                      **Strike First Corporation**  
    **777 Tapscott Road**  
    **Scarborough ON**  
    **M1X 1A2 Canada**

**Revision Date**                    **January 11, 2021**  
**Revision Note**                    **Updated to current year**



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**END OF SAFETY DATA SHEET**

### SECTION 1: Identification

#### 1.1. Product identifier

Product form	: Substance
Substance name	: Carbon Dioxide (Compressed)
Chemical name	: Carbon Dioxide
CAS-No.	: 124-38-9
Product code	: CA-1001-07262
Formula	: CO <sub>2</sub>
Synonyms	: Carbonic acid gas / Carbon dioxide in coal mines / Carbon dioxide / ALIGAL™ 2

#### 1.2. Recommended use and restrictions on use

Recommended uses and restrictions	: Protective Atmosphere for Food and Beverages; Semiconductor Purposes; Manufacture of Substances
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#### 1.3. Supplier

Air Liquide Canada Inc.  
 1250, René Lévesque West Blvd. Suite 1700  
 H3B 5E6 Montreal, QC - Canada  
 T 1-800-817-7697  
[www.airliquide.ca](http://www.airliquide.ca)

#### 1.4. Emergency telephone number

Emergency number	: 514-878-1667
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### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-CA)

Gases under pressure : Liquefied gas H280  
 Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-CA labelling

Hazard pictograms (GHS-CA)



GHS04

Signal word (GHS-CA)

: Warning

Hazard statements (GHS-CA)

: H280 - Contains gas under pressure; may explode if heated  
 OSHA-H01 - May displace oxygen and cause rapid suffocation  
 CGA-HG01 - May cause frostbite  
 CGA-HG03 - May increase respiration and heart rate

Precautionary statements (GHS-CA)

: P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.  
 P403 - Store in a well-ventilated place  
 P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
 P202 - Do not handle until all safety precautions have been read and understood  
 P308+P313 - IF exposed or concerned: Get medical advice/attention  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P271 - Use only outdoors or in a well-ventilated area  
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 P302 - IF ON SKIN:  
 CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52 °C/125 °F  
 CGA-PG05 - Use a back flow preventive device in the piping  
 CGA-PG06 - Close valve after each use and when empty  
 CGA-PG10 - Use only with equipment rated for cylinder pressure

CGA-PG14 - Approach suspected leak area with caution  
CGA-PG21 - Open valve slowly

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS-CA)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : Carbon Dioxide (Compressed)

CAS-No. : 124-38-9

Name	Chemical name/Synonyms	Product identifier	%	Classification (GHS-CA)
Carbon Dioxide		(CAS-No.) 124-38-9	<= 99.9	Press. Gas (Liq.), H280

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
- First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May displace oxygen and cause rapid suffocation. May increase respiration and heart rate.
- Symptoms/effects after skin contact : May cause frostbite.
- Symptoms/effects after eye contact : Contact with the product may cause cold burns or frostbite.
- Symptoms/effects after ingestion : Ingestion is not considered a potential route of exposure.
- Symptoms/effects upon intravenous administration : Not known.
- Chronic symptoms : Adverse effects not expected from this product.

### 4.3. Immediate medical attention and special treatment, if necessary

- Other medical advice or treatment : If you feel unwell, seek medical advice. If breathing is difficult, give oxygen.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

### 5.2. Unsuitable extinguishing media

- Unsuitable extinguishing media : Do not use water jet to extinguish.

### 5.3. Specific hazards arising from the hazardous product

- Fire hazard : The product is not flammable.
- Explosion hazard : Product is not explosive. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
- Hazardous combustion products : None

### 5.4. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Exposure to fire may cause containers to rupture/explode.
- Protection during firefighting : Standard protective clothing and equipment (e.g. Self Contained Breathing Apparatus) for fire fighters. Do not enter fire area without proper protective equipment, including respiratory protection.

# ALIGAL 2™

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Ensure adequate ventilation.
- Personal Precautions, Protective Equipment and Emergency Procedures : EVACUATE ALL PERSONNEL FROM AFFECTED AREA. Use appropriate protective equipment. If leak is on user's equipment, be certain to purge piping before attempting repairs. If leak is on a container or container valve contact the closest Air Liquide Canada location.

#### 6.2. Methods and materials for containment and cleaning up

- For containment : Try to stop release if without risk.
- Methods for cleaning up : Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Do not eat, drink or smoke when using this product.
- Additional hazards when processed : Pressurized container: Do not pierce or burn, even after use. Use only with equipment rated for cylinder pressure. Close valve after each use and when empty.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Storage conditions : Do not expose to temperatures exceeding 52 °C/ 125 °F. Keep container closed when not in use. Protect cylinders from physical damage; do not drag, roll, slide or drop. Store in well ventilated area.
- Incompatible products : None known.
- Incompatible materials : None known.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Carbon Dioxide (124-38-9)		
USA - ACGIH	ACGIH TWA (ppm)	5000 ppm
USA - ACGIH	ACGIH STEL (ppm)	30000 ppm
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	9000 mg/m <sup>3</sup>
USA - OSHA	OSHA PEL (TWA) (ppm)	5000 ppm
Canada (Quebec)	VECD (mg/m <sup>3</sup> )	54000 mg/m <sup>3</sup>
Canada (Quebec)	VECD (ppm)	30000 ppm
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	9000 mg/m <sup>3</sup>
Canada (Quebec)	VEMP (ppm)	5000 ppm
Alberta	OEL STEL (mg/m <sup>3</sup> )	54000 mg/m <sup>3</sup>
Alberta	OEL STEL (ppm)	30000 ppm
Alberta	OEL TWA (mg/m <sup>3</sup> )	9000 mg/m <sup>3</sup>
Alberta	OEL TWA (ppm)	5000 ppm
British Columbia	OEL STEL (ppm)	15000 ppm
British Columbia	OEL TWA (ppm)	5000 ppm
Manitoba	OEL STEL (ppm)	30000 ppm
Manitoba	OEL TWA (ppm)	5000 ppm
New Brunswick	OEL STEL (mg/m <sup>3</sup> )	54000 mg/m <sup>3</sup>
New Brunswick	OEL STEL (ppm)	30000 ppm
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	9000 mg/m <sup>3</sup>
New Brunswick	OEL TWA (ppm)	5000 ppm
New Foundland & Labrador	OEL STEL (ppm)	30000 ppm
New Foundland & Labrador	OEL TWA (ppm)	5000 ppm
Nova Scotia	OEL STEL (ppm)	30000 ppm

# ALIGAL 2™

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Carbon Dioxide (124-38-9)		
Nova Scotia	OEL TWA (ppm)	5000 ppm
Nunavut	OEL STEL (ppm)	30000 ppm
Nunavut	OEL TWA (ppm)	5000 ppm
Northwest Territories	OEL STEL (ppm)	30000 ppm
Northwest Territories	OEL TWA (ppm)	5000 ppm
Ontario	OEL STEL (ppm)	30000 ppm
Ontario	OEL TWA (ppm)	5000 ppm
Prince Edward Island	OEL STEL (ppm)	30000 ppm
Prince Edward Island	OEL TWA (ppm)	5000 ppm
Saskatchewan	OEL STEL (ppm)	30000 ppm
Saskatchewan	OEL TWA (ppm)	5000 ppm
Yukon	OEL STEL (mg/m <sup>3</sup> )	27000 mg/m <sup>3</sup>
Yukon	OEL STEL (ppm)	15000 ppm
Yukon	OEL TWA (mg/m <sup>3</sup> )	9000 mg/m <sup>3</sup>
Yukon	OEL TWA (ppm)	5000 ppm

### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure exposure is below occupational exposure limits (where available). Provide adequate general and local exhaust ventilation. Systems under pressure should be regularly checked for leakages. Oxygen detectors should be used when asphyxiating gases may be released. Consider the use of a work permit system e.g. for maintenance activities.
- Environmental exposure controls : Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Gloves. Safety glasses. Protective clothing. Safety shoes.

#### Hand protection:

Wear working gloves when handling gas containers.

#### Eye protection:

Wear safety glasses with side shields.

#### Skin and body protection:

Wear suitable protective clothing, e.g. lab coats, coveralls or flame resistant clothing.

#### Respiratory protection:

None necessary during routine operations. See Sections 5 & 6



#### Thermal hazard protection:

None necessary during routine operations.

#### Other information:

Wear safety shoes while handling containers.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Clear, colorless gas.
Colour	: Colourless
Odour	: Odourless

# ALIGAL 2™

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: Not applicable
Molecular mass	: 44.01 g/mol
Melting point	: No data available
Freezing point	: -56.6 °C
Boiling point	: No data available
Flash point	: Not applicable (non-flammable gas)
Critical temperature	: 31.1 °C
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: See Section 2.1 and 2.2
Vapour pressure	: 5730 kPa
Vapour pressure at 50 °C	: No data available
Critical pressure	: 7381.8 kPa
Relative density	: 0.82
Relative gas density	: 1.52 Heavier than air
Solubility	: Water: 90 %
Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: Not applicable (non-flammable gas).
Oxidising properties	: None.
Explosive limits	: Not applicable (non-flammable gas)

### 9.2. Other information

Sublimation point	: -78.5 °C
Additional information	: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	: None known.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: None known.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: None known.
Hazardous decomposition products	: Under normal conditions of storage and use hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Inhalation:gas: Not classified.

#### Carbon Dioxide (Compressed) ( f )124-38-9

LC50 inhalation rat (ppm)	820000 ppm/4h
ATE CA (gases)	820000.00000000 ppmv/4h

#### Carbon Dioxide (124-38-9)

LC50 inhalation rat (ppm)	820000 ppm/4h
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

# ALIGAL 2™

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

##### Carbon Dioxide (124-38-9)

Persistence and degradability	No ecological damage caused by this product.
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#### 12.3. Bioaccumulative potential

##### Carbon Dioxide (124-38-9)

BCF fish 1	(no bioaccumulation)
Log Pow	0.83
Bioaccumulative potential	No ecological damage caused by this product.

#### 12.4. Mobility in soil

##### Carbon Dioxide (124-38-9)

Log Pow	0.83
Ecology - soil	No ecological damage caused by this product.

#### 12.5. Other adverse effects

Effect on ozone layer : No known effects from this product.  
GWPmix comment : No known effects from this product.

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods : Contact supplier if guidance is required. Do not discharge into any place where its accumulation could be dangerous. Ensure that the emission levels from local regulations or operating permits are not exceeded.

Product/Packaging disposal recommendations : Refer to the CGA Pamphlet P-63 "Disposal of Gases" available at [www.cganet.com](http://www.cganet.com) for more guidance on suitable disposal methods.

### SECTION 14: Transport information

#### 14.1. Basic shipping description

In accordance with TDG

#### Transportation of Dangerous Goods

UN-No. (TDG) : UN1013  
TDG Primary Hazard Classes : 2.2 - Class 2.2 - Non-Flammable, Non-Toxic Gas.  
Transport Document Description : UN1013 CARBON DIOXIDE, 2.2  
Proper Shipping Name : CARBON DIOXIDE

Hazard labels (TDG) : 2.2 - Non-flammable, non-toxic gases



# ALIGAL 2™

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

**TDG Special Provisions** : 148 - (1) Part 5 (Means of Containment) does not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles if (a)the working pressure in each receptacle is less than 5 000 KPa; (b)the capacity of each receptacle is less than 12 L; (c)each receptacle has a minimum burst pressure of (i)at least 3 times the working pressure, when the receptacle is fitted with a relief device, or (ii)at least 4 times the working pressure, when the receptacle is not fitted with a relief device; (d)each receptacle is manufactured from material that will not fragment upon rupture; (e)each detector is manufactured under a quality assurance program; ISO 9001:2008 is an example of a quality assurance program. (f)the detectors are transported in strong outer means of containment; and (g)a detector in its outer means of containment is capable of withstanding a 1.2 m drop test without breakage of the detector or rupture of the outer means of containment. (2)Part 5 (Means of Containment) does not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles and that are included in equipment, if (a)the conditions set out in paragraphs (1)(a) to (e) are met; and (b)the equipment is contained in a strong outer means of containment or the equipment affords the detectors with protection that is equivalent to that provided by a strong outer means of containment. (3)These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles, including detectors in radiation detection systems, if the detectors meet the requirements of subsection (1) or (2), as applicable, and the capacity of the receptacles that contain the detectors is less than 50 mL. SOR/2014-306

**Explosive Limit and Limited Quantity Index** : 0.125 L

**Excepted quantities (TDG)** : E1

**Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index** : 75 L

### 14.2. Transport information/DOT - USA

#### Department of Transport

**DOT NA no.** : UN1013

**UN-No.(DOT)** : 1013

**Transport Document Description** : UN1013 Carbon dioxide, 2.2

**Proper Shipping Name (DOT)** : Carbon dioxide

**Contains Statement Field Selection (DOT)** : DOT\_TECHNICAL - Proper Shipping Name - Technical (DOT)

**Class (DOT)** : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115

**Division (DOT)** : 2.2

**Hazard labels (DOT)** : 2.2 - Non-flammable gas



**Dangerous for the environment** : No

**DOT Packaging Exceptions (49 CFR 173.xxx)** : 306

**DOT Packaging Non Bulk (49 CFR 173.xxx)** : 302;304

**DOT Packaging Bulk (49 CFR 173.xxx)** : 302;314;315

**DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)** : 75 kg

**DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)** : 150 kg

**DOT Vessel Stowage Location** : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

**Emergency Response Guide (ERG) Number** : 120

**Other information** : No supplementary information available.

### 14.3. Air and sea transport

#### IMDG

**UN-No. (IMDG)** : 1013

# ALIGAL 2™

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Proper Shipping Name (IMDG) : CARBON DIOXIDE  
Transport Document Description (IMDG) : UN 1013 CARBON DIOXIDE, 2.2  
Class (IMDG) : 2 - Gases

### IATA

UN-No. (IATA) : 1013  
Proper Shipping Name (IATA) : Carbon dioxide  
Transport Document Description (IATA) : UN 1013 Carbon dioxide, 2.2  
Class (IATA) : 2

## SECTION 15: Regulatory information

### 15.1. National regulations

#### Carbon Dioxide (124-38-9)

Listed on the Canadian DSL (Domestic Substances List)

### 15.2. International regulations

#### Carbon Dioxide (124-38-9)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

## SECTION 16: Other information

Date of issue : 05/09/2017

Full text of H-statements:

H280	Contains gas under pressure; may explode if heated
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SDS Canada (GHS)

*THE INFORMATION, RECOMMENDATIONS AND DATA CONTAINED IN THIS DOCUMENT ARE INTENDED TO BE USED BY PROPERLY TRAINED AND QUALIFIED PERSONNEL ONLY AND AT THEIR SOLE RISKS AND DISCRETION. THE INFORMATION, RECOMMENDATIONS AND DATA HEREIN CONTAINED ARE DERIVED FROM SOURCES WHICH WE BELIEVE TO BE RELIABLE. HOWEVER, AIR LIQUIDE CANADA INC. MAKES NO REPRESENTATION AND GIVES NO WARRANTY OF ANY KIND WHATSOEVER WITH RESPECT TO THEIR ACCURACY OR COMPLETENESS AND ASSUMES NO LIABILITY FOR DAMAGES OR LOSS ARISING DIRECTLY OR INDIRECTLY FROM THEIR USE, WHETHER PROPER OR IMPROPER.*



# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

Product Name                      Nitrogen

### Other means of identification

Synonyms                              Nitrogen gas

### Recommended use of the chemical and restrictions on use

Recommended Use                      Expellant Gas for Fire Extinguishers

Uses advised against                      Not for human or animal drug use

### Details of the Supplier of the Safety Data Sheet

Manufacturer                              STRIKE FIRST CORPORATION  
777 Tapscott Rd. Toronto Ontario  
Canada M1X 1A2

Contact Information                      Phone: (416) 299-7767  
Fax: (416) 299-8039  
Email: [info@strike-first.com](mailto:info@strike-first.com)

Emergency Telephone Number      CHEMTREC 1-800-424-9300 or  
(703) 527-3887

## 2. HAZARDS IDENTIFICATION

This SDS covers the Nitrogen generated by Strike First in-house and the expellant gas used in pressurized fire extinguisher. GHS classifications for both are listed below.

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### GHS Label elements, including precautionary statements

<u>Hazard Symbol</u>	<u>Signal Word</u>	<u>Hazard Statement</u>
	<u>Warning</u>	<u>CONTAINS GAS UNDER PRESSURE - COMPRESSED GAS; MAY EXPLODE IF HEATED. MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION.</u>

**Emergency Overview**

The product contains no substances which at their concentration, are considered to be hazardous to health.

<b>Appearance</b>	Colorless	<b>Physical State</b>	Gas	<b>Odor</b>	Odorless
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**Precautionary Statements**

**General:** Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction.

**Prevention:** None

**Response:** None

**Storage:** Protect from sunlight. Protect from sunlight when ambient temperature exceeds 52°C/125°F. Store in a well-ventilated place.

**Disposal:** None

**Hazards not otherwise classified:** In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation.

**Unknown Toxicity**

Not available

**Other information**

No information available.

**Interactions with Other Chemicals**

No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Synonyms**

Nitrogen, compressed

<b>Chemical Name</b>	<b>CAS No</b>	<b>Weight - %</b>
Nitrogen gas (generated)	7727-37-9	99.5 – 100

**4. FIRST AID MEASURES****First aid measures**

**Eye contact:** Adverse effects not expected from this product. In case of eye irritation; rinse immediately with plenty of water. Consult an ophthalmologist if irritation persists

**Skin contact:** Adverse effects not expected from this product.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may give oxygen. Call a physician.

**Ingestion:** Ingestion is not considered a potential route of exposure.

**Most important symptoms and effects, both acute and delayed**

**Most Important Symptoms and Effects:** No information available.

**Indication of any immediate medical attention and special treatment if needed**

**Notes to Physician:** In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

None Known.

**Specific hazards arising from the chemical**

Reactivity Under certain condition, nitrogen can react violently with lithium, neodymium, titanium (above 1472 °F/800 °C), and magnesium to form nitrides. At high temperature, it can also combine with oxygen or hydrogen

**Hazardous Combustion Products**

Decomposition products may include the following materials: nitrogen oxides.

**Protective equipment and precautions for firefighters**

**Firefighting Instruction:** Evacuate all personnel from the danger area. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. On-site fire brigades must comply with OSHA 29 CFR 1910.156 and applicable standards under 29 CFR 1910 Subpart L—Fire Protection.

**Protection during firefighting:** Compressed gas: Asphyxiant. Suffocation hazard by lack of oxygen.

**Special protective equipment for firefighter:** Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.

**Specific Method:** Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas containers to rupture. Prevent water used in emergency cases from entering sewers and drainage systems. Stop flow of product if safe to do so.

Use water spray or fog to knock down fire fumes if possible.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**For non-emergency Personnel:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For non-emergency Personnel:** If specialized clothing is required to deal with the spillage, take note of any information on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

**Environmental Precautions:** Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small Spill:** Immediately contact emergency personnel. Stop leak if without risk.  
**Large Spill:** Immediately contact emergency personnel. Stop leak if without risk.  
Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Protective measures:** Put on appropriate personal protective equipment. Contains gas under pressure. Avoid contact with eyes, skin and clothing. Avoid breathing gas.

**Advice on general Occupational hygiene:** Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### Conditions for safe storage, including any incompatibilities

**Storage:** Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Keep container tightly closed and sealed until ready for use. Container temperatures should not exceed 52 °C (125 °F).

**Incompatible Products:** Not available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

**Exposure Guidelines**

Nitrogen (CAS #7727-37-9)		Nitrogen, Compressed (CAS #7727-37-9)	
ACGIH	USA OSHA	ACGIH	USA OSHA
Not Established	Not Established	Not Established	Not Established

ACGIH: American Conference of Government Industrial Hygienist

OSHA: Occupational Safety and Health Administration

**Appropriate engineering controls**

- Engineering measures:** Good ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental measures:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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

- Eye/face protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with sideshields.
- Skin and body protection:** Wear metatarsal shoes and work gloves for handling, and protective clothing where needed. Wear appropriate chemical gloves wherever contact with product is possible.
- Respiratory protection:** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical and Chemical Properties**

- |   |                             |
|---|-----------------------------|
| <b>Physical state:</b>                              | Gas                         |
| <b>Appearance:</b>                                  | Colorless gas.              |
| <b>Molecular mass:</b>                              | 28 g/mol                    |
| <b>Color:</b>                                       | Colorless.                  |
| <b>Odor:</b>  | No odor warning properties. |
| <b>Odor threshold:</b>                              | No data available           |
| <b>pH:</b>  | Not applicable.             |
| <b>Relative evaporation rate (butyl acetate=1):</b> | No data available           |

<b>Relative evaporation rate (ether=1):</b>	Not applicable.
<b>Melting point:</b>	-210 °C
<b>Freezing point:</b>	No data available
<b>Boiling point:</b>	-195.8 °C
<b>Flash point:</b>	No data available
<b>Critical temperature:</b>	-149.9 °C
<b>Auto-ignition temperature:</b>	Not applicable.
<b>Decomposition temperature:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Vapor pressure:</b>	Not applicable.
<b>Relative vapor density at 20 °C:</b>	No data available
<b>Relative density:</b>	No data available
<b>Density:</b>	1.16 kg/m <sup>3</sup>
<b>Relative gas density:</b>	0.97
<b>Solubility:</b>	Water: 20 mg/l
<b>Log Pow:</b>	Not applicable.
<b>Log Kow:</b>	Not applicable.
<b>Viscosity, kinematic:</b>	Not applicable.
<b>Viscosity, dynamic:</b>	Not applicable.
<b>Explosive properties:</b>	Not applicable.
<b>Oxidizing properties:</b>	None.
<b>Explosion limits:</b>	No data available

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	Under certain conditions, nitrogen can react violently with lithium, neodymium, titanium (above 1472°F/800°C), and magnesium to form nitrides. At high temperature, it can also combine with oxygen and hydrogen.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	May occur.
<b>Conditions to avoid</b>	None under recommended storage and handling conditions.
<b>Incompatible materials</b>	None.
<b>Hazardous decomposition products</b>	None.

## 11. TOXICOLOGICAL INFORMATION

<b>Mutagenicity:</b>	No known significant effects or critical hazards.
<b>Teratogenicity:</b>	No known significant effects or critical hazards.
<b>Developmental effects:</b>	No known significant effects or critical hazards.
<b>Fertility effects:</b>	No known significant effects or critical hazards.

**Numerical measures of toxicity**  
Not available.

**Acute toxicity estimates**  
Not available.

### Information on toxicological effects

<b>Acute toxicity:</b>	Not classified
<b>Skin corrosion/irritation:</b>	Not classified pH: Not applicable.
<b>Serious eye damage/irritation:</b>	Not classified pH: Not applicable.
<b>Respiratory or skin sensitization:</b>	Not classified
<b>Germ cell mutagenicity:</b>	Not classified
<b>Carcinogenicity:</b>	Not classified
<b>Reproductive toxicity:</b>	Not classified
<b>Specific target organ toxicity (single exposure):</b>	Not classified
<b>Specific target organ toxicity (repeated exposure):</b>	Not classified
<b>Aspiration hazard:</b>	Not classified

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

No ecological damage cause by this product.

### Persistence and Degradability

Chemical	Persistence and Degradability
Nitrogen (CAS #7727-37-9)	No ecological damage cause by this product
Nitrogen, Compressed (CAS #7727-37-9)	No ecological damage cause by this product

### Bioaccumulative potential

Chemical	Log Pow	Log Kow	Bioaccumulative Potential
Nitrogen (CAS #7727-37-9)	Not applicable	Not applicable	No ecological damage cause by this product
Nitrogen, Compressed (CAS #7727-37-9)	Not applicable	Not applicable	No ecological damage cause by this product

### Mobility in soil

Chemical	Mobility in soil	Ecology - soil
Nitrogen (CAS #7727-37-9)	Not data available	No ecological damage cause by this product
Nitrogen, Compressed (CAS #7727-37-9)	Not data available	No ecological damage cause by this product

### Other adverse effects

**Effect on Ozone:** None

**Effect on the global warming:** None

## 13. DISPOSAL INFORMATION

### Waste treatment methods

<b>Disposal methods:</b>	This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261. To determine whether the altered material is a hazardous waste, consult the appropriate state, regional, or local regulations for additional requirements.
<b>Contaminated Packaging:</b>	Dispose of contents/containers in accordance with local regulations.

## 14. TRANSPORTATION INFORMATION

<b><u>DOT</u></b>	NOT REGULATED
<b>Proper Shipping Name</b>	NON REGULATED
<b>Hazard Class</b>	N/A
<b><u>TDG</u></b>	Not Regulated
<b><u>MEX</u></b>	Not Regulated
<b><u>ICAO</u></b>	Not Regulated
<b><u>IATA</u></b>	Not Regulated
<b>Proper Shipping Name</b>	NON REGULATED
<b>Hazard Class</b>	N/A
<b><u>IMDG/IMO</u></b>	Not Regulated
<b>Hazard Class</b>	N/A
<b><u>IRD</u></b>	Not Regulated
<b><u>ADR</u></b>	Not Regulated
<b><u>ADN</u></b>	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:**

If shipped in a stored pressure-type fire extinguisher, as a non-flammable, nontoxic 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 is Limited Quantity when shipped via highway or rail. Use a Non-Flammable Gas label (class 2.2) when shipping via air.

## 15. REGULATORY INFORMATION

<b>U.S. Federal regulations:</b>	<b>TSCA 8(a) CDR Exempt/Partial exemption:</b> This material is listed or exempted.
	<b>United States inventory (TSCA 8b):</b> This material is listed or exempted.

**Clean Air Act Section 112****(b) Hazardous Air****Pollutants (HAPs):** Not listed**Clean Air Act Section 602****Class I Substances:** Not listed**Clean Air Act Section 602****Class II Substances:** Not listed**DEA List I Chemicals****(Precursor Chemicals):** Not listed**DEA List II Chemicals****(Essential Chemicals):** Not listed**SARA 302/304****Composition/information on ingredients**

No products were found.

**SARA 304 RQ:** Not applicable.**SARA 311/312****Classification :** Sudden release of pressure**Composition/information on ingredients**

Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Nitrogen	99-100	No	Yes	No	No	No

**State Regulations**

**Massachusetts:** This material is listed.  
**New York:** This material is not listed.  
**New Jersey:** This material is listed.  
**Pennsylvania:** This material is listed.

**International regulations****International lists****National inventory**

**Australia:** This material is listed or exempted.  
**Canada:** This material is listed or exempted.  
**China:** This material is listed or exempted.  
**Europe:** This material is listed or exempted.  
**Japan:** Not determined.  
**Republic of Korea:** This material is listed or exempted.  
**Malaysia:** Not determined.  
**New Zealand:** This material is listed or exempted.  
**Philippines:** This material is listed or exempted.  
**Taiwan:** This material is listed or exempted.

**Canada****WHMIS (Canada):**

Class A: Compressed gas.

**CEPA Toxic substances:** This material is not listed.**Canadian ARET:** This material is not listed.

**Canadian NPRI:** This material is not listed.

**Alberta Designated Substances:** This material is not listed.

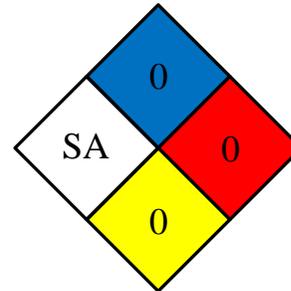
**Ontario Designated Substances:** This material is not listed.

**Quebec Designated Substances:** This material is not listed.

## 16. OTHER INFORMATION

NFPA	Health Hazards	0	Flammability	0	Instability	0	Physical and Chemical Hazards – Personal Protection
HMIS	Health Hazards	0	Flammability	0	Instability	0	SA

Health		0
Flammability		0
Physical hazards		0



**Prepared By:** Strike First Corporation  
777 Tapscott Road  
Scarborough ON  
M1X 1A2 Canada

**Revision Date:** January 11, 2021

**Revision Note:** Updated to current year

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of this publication. This information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the test.

**END OF SAFETY DATA SHEET**



**STRIKE FIRST  
CORPORATION**

**STRIKE FIRST CORPORATION**

777 Tapscott Road  
Scarborough, Ontario  
M1X 1A2

**SAFETY DATA SHEET**

Prepared to US OSHA Hazard Communication Standard and Globally Harmonized System of Classification and Labeling of Chemicals

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**TRADE NAME (AS LABELED):** Water Fire Extinguisher, ( Pressurized and Non-pressurized)  
**PRODUCT USE:** Fire Extinguishing Agent  
**RESTRICTION OF USE:** Do not use on electrically energized equipment. Consult applicable fire protection codes  
**MANUFACTURER'S NAME:** STRIKE FIRST CORPORATION  
**ADDRESS:** 777 Tapscott Road  
Scarborough, ON  
M1X 1A2  
**BUSINESS PHONE:** 416.299.7767  
**DATE OF PREPARATION:** March 29, 2017  
**DATE OF REVISION:** January 11, 2021

**2. HAZARDS IDENTIFICATION**

This SDS covers the product listed above as sold in pressurized and non-pressurized containers. GHS classifications for both forms are listed below.

GHS Classification – Pressurized

**Hazard Classification**

Gas under pressure – Compressed Gas

**Label Elements**

Hazard Symbol



Signal Word: Warning

**Hazard Statements**

Contents under pressure; may explode if heated

**Precautionary Statements**

**Prevention**

None

**Response**

None

**Storage**

Protect from sunlight.  
Store in a well-ventilated place.

**Disposal**

None

**GHS Classification: Non-pressurized****Hazard Classification**

This product is classified as not hazardous in accordance with the Globally Harmonized System of Classification and Labeling (GHS).

**Label Elements**

Hazard Symbols

None

Signal Word: None

**Hazard Statements**

None

**Precautionary Statements****Prevention**

None

**Response**

None

**Storage**

None

**Disposal**

None

**Other Hazards**

Possible electrocution hazard if used on electrically energized equipment.

**Specific Concentration Limits**

The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity	0%
Acute dermal toxicity	0%
Acute inhalation toxicity	0%
Acute aquatic toxicity	0%

**3. COMPOSITION, INFORMATION ON INGREDIENTS**

This product is a mixture.

**Components:**

<b>Water:</b>	<b>Concentration</b>	<b>CAS NUMBER</b>
	100 %	7732-18-5

**Note: Pressurized product uses nitrogen or compressed air as expellant.**

**4. FIRST AID MEASURES**

**Prompt medical attention is mandatory in all cases of overexposure to this solution.**

**Eye contact:** None.

**Skin Contact:** None.

**Inhalation:** None  
**Ingestion:** None  
**Notes to physician:** None

#### 5. FIRE FIGHTING MEASURES

**Flammability of the product:** Non-flammable.

**Extinguishing media:**

**Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire. This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a blaze. Use extinguishing agent appropriate to other materials involved. Keep pressurized extinguishers and surroundings cool with water spray as they may rupture or burst in the heat of a fire.

**Special protective equipment for fire-fighters:**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** None in normal quantities

Surfaces may become slippery after spillage.

**Environmental precautions:**

If product is contaminated, use PPE and containment appropriate to the nature of the most toxic chemical/material in the mixture. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

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

Should not be released into the environment.

**Large Spills:** Use pump if necessary. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

**Small Spills:** Wipe up with absorbent material (e.g. cloth, fleece).

Never return spills in original containers for re-use. Following product recovery, flush the area with water. Clean surface thoroughly to remove residual contamination.

#### 7. HANDLING AND STORAGE

Pressurized extinguishers should be properly stored and secured to prevent from falling or being knocked over. Do not drag, slide or roll extinguishers. Do not drop extinguishers or permit them to strike against each other. Never apply flame or localized heat directly to any part of the extinguisher or plastic container. Store pressurized extinguishers and plastic containers away from high heat sources. Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight.

**Handling:** None.

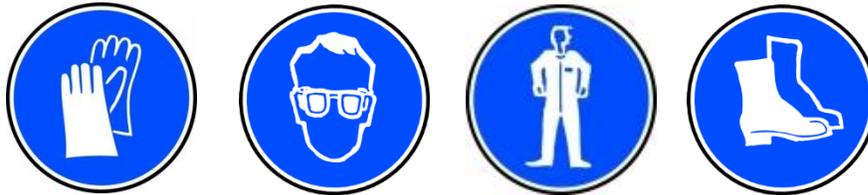
**Storage:** Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage.

#### Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls:** None.

**Personal protection**

- Respiratory:** None.
- Hands:** Wear glove protection appropriate to the specific operation for which this gas is used.
- Eyes:** Safety glasses with side shields.
- Skin/Body:** Use body protection appropriate for task. Pressurized product may require use of fire retardant clothing. Metal cap safety shoes, are recommended when handling cylinders.



Some applications of this product may require additional or other specific protective clothing. Please consult your supervisor.

- Personal protection:** Safety glasses with side shields, goggles or face shield. Impervious gloves. Protective clothing. Metal cap safety shoes.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state:** Liquid.
- Color:** Colorless.
- Odor:** Odorless.
- Boiling/condensation point:** 100C (212F).
- Melting/freezing point:** 0C (32F)
- pH:** 7.0
- Specific gravity:** 1.0
- Vapor density:** Not available (Air = 1).
- Solubility (@20C):** Not applicable.

## 10. STABILITY AND REACTIVITY

- Stability and reactivity:** This product is stable.
- Incompatibility:** Strong acids and bases.
- Hazardous:**
- decomposition products:** Not applicable.
- Hazardous polymerization:** Does not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute Effects**

- Inhalation:** None expected.
- Skin:** None.
- Eyes:** May cause temporary eye irritation.
- Ingestion:** No harmful effects expected in amounts likely to be ingested by accident.
- Potential chronic health effects:** None.

**12. ECOLOGICAL INFORMATION**

<b>Mobility:</b>	No relevant studies identified
<b>Persistence/Degradability:</b>	No relevant studies identified
<b>Bio-accumulation:</b>	No relevant studies identified
<b>Ecotoxicity:</b>	No relevant studies identified

**13. DISPOSAL CONSIDERATION**

<b>Disposal:</b>	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
<b>Waste from residues:</b>	Dispose of in accordance with local regulations.

**14. TRANSPORTATION INFORMATION**

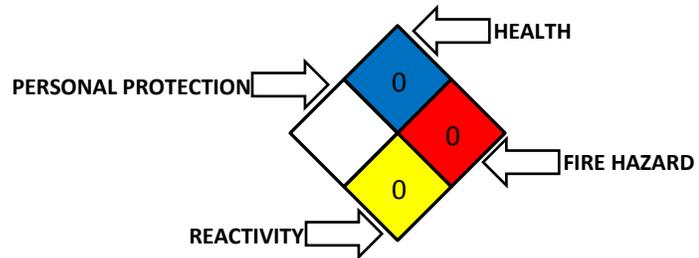
<b>DOT/TC:</b>	Not regulated
<b>UN Proper Shipping Name:</b>	Not regulated
<b>UN Class:</b>	None
<b>UN Number:</b>	None
<b>UN Packaging Group:</b>	None

**15. REGULATORY INFORMATION****US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS**

<b>TSCA Listing:</b>	This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Substance Inventory.
<b>EINECS Listing:</b>	All ingredients in this product are listed on the European Inventory of Existing Commercial Chemical Substances (EINECS) or are exempt from listing.
<b>DSL/NDSL (Canadian) Listing:</b>	All ingredients in this product are listed on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL) or are exempt from listing.
<b>WHMIS Classification:</b>	D2B This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.
<b>MA Right To Know Law:</b>	All components have been checked for inclusion on the Massachusetts Substance List (MSL). Those components present at or above the de minimus concentration include: none
<b>PA Right To Know Law:</b>	This product contains the following chemicals found on the Pennsylvania Hazardous Substance List: -none
<b>NJ Right To Know Law:</b>	This product contains the following chemicals found on the NJ Right To Know Hazardous Substance List: - none
<b>California Proposition 65:</b>	This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.
<b>SARA Title III Sect. 302 (EHS):</b>	This product does not contain any chemicals subject to SARA Title III Section 302.
<b>SARA Title III Sect. 304:</b>	This product does not contain any chemicals subject to SARA Title III Section 304.
<b>SARA Title III Sect. 311/312 Categorization:</b>	- Immediate (Acute) Health Hazard
<b>SARA Title III Sect. 313:</b>	This product does not contain any chemicals that are listed in Section 313 at or above the minimum concentrations.

**16. OTHER INFORMATION****HMIS Ratings:****NFPA Ratings**

HEALTH (BLUE)	0
FIRE HAZARD (RED)	0
REACTIVITY (YELLOW)	0
PERSONAL PROTECTION (WHITE)	G



Consult an Industrial Hygienist or other trained person when you make your safety evaluation of the end product. Remember, gases and liquids have properties which can cause serious injury or death.

**Acronyms:**

- ACGIH: American Conference of Governmental Industrial Hygiene.
- IARC: International Agency for Research on Cancer.
- NIOSH: National Institute of Occupational Safety and Health.
- OSHA: Occupational Safety and Health Administration
- NTP: National Toxicology program.
- SARA: Superfund Amendments and Reauthorization Act.
- PEL: Permissible Exposure Limit.
- IDLH: Immediately Dangerous to Life and Health.
- NE: Not established.
- C: Ceiling Limit.
- DSL: Domestic Substance List.
- NDSL: Non-Domestic Substance List.
- CFR: Code of Federal Regulations.
- TSCA: Toxic Substance Control Act.

Revision Date: January 11, 2021

Replaces: March 29, 2017

Changes made: Updated to current year

**Notice to reader**

This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200, and Globally Harmonized System of Classification and Labeling of Chemicals. Other government regulations must be reviewed for applicability to this mixture. To the best of Strike First's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.



# SAFETY DATA SHEET

Prepared to US OSHA Hazard Communication Standard and Globally Harmonized System of Classification and Labeling of Chemicals

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**TRADE NAME (AS LABELED):** WET CHEMICAL SOLUTION (SF-6LK/6LKR). Fire Extinguishing Agent, Pressurized and Non-pressurized  
**PRODUCT USE:** Fire Extinguishing Agent  
**RESTRICTION OF USE:** Do not use on electrically energized equipment. Consult applicable fire protection codes  
**MANUFACTURER'S NAME:** STRIKE FIRST CORPORATION  
**ADDRESS:** 777 Tapscott Road  
 Scarborough, ON  
 M1X 1A2  
**BUSINESS PHONE:** 416.299.7767  
**EMERGENCY CONTACT NO:** CHEMTREC 1-800-424-9300 or  
 (703) 527-3887  
**DATE OF PREPARATION:** May 5, 2012  
**DATE OF REVISION:** January 11, 2021

## 2. HAZARDS IDENTIFICATION

### GHS – Classification

Health	Environmental	Physical
Acute Toxicity: Category 5	None	None
Skin Corrosion/Irritation: YES	None	None
Skin Sensitization: NO	None	None
Eye: Category 2B	None	Warning
STOT – Category 3	None	Warning
Carcinogen: Category None	None	None

### GHS – Label Symbol(s):



**GHS – Signal Word(s):** None

**Other Hazards Not Resulting In Classification:** None

### GHS – Hazard Phrases

GHS Hazard	GHS Code(s)	Code Phrase(s)
<b>Physical</b>	None	
<b>Health</b>	H303 320 335	Maybe Harmful if Swallowed Causes eye irritation May cause respiratory irritation
<b>Environmental</b>	None	

<b>Precautionary:</b>		
<b>General</b>	P101	If medical advice is needed, have product container or label at hand
<b>Prevention</b>	261 264	Avoid breathing mist Wash hands and face thoroughly after handling
<b>Response</b>	P304+340 305+351+313  337+38  312	If inhaled, remove person to fresh air and keep comfortable for breathing. If in eyes, rinse cautiously with water for several minutes. Get immediate medical advice/attention (as appropriate). If eye irritation persists: remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER/doctor if you feel unwell (as appropriate).
<b>Storage</b>	None	

### 3. COMPOSITION, INFORMATION ON INGREDIENTS

This product is a mixture.

#### Components:

Chemical Name	Concentration	EC Number	CAS Number
Potassium Citrate	1 – 10%	212-755-5	866-84-2
Potassium Acetate	20 – 30%	204-822-2	127-08-2
Water	50 – 60%	N/A	7732-18-5

Emergency Overview:

Adverse health effects and symptoms:

Clear to opaque liquid solution

This product is an irritant to the respiratory system, eyes and skin. Symptoms may include coughing, sore throat, difficulty breathing, eye pain, and skin redness and irritation. Ingestion, although unlikely, may cause cramps, nausea and diarrhea.

#### Components:

Chemical Name	Reproductive Toxicity	Carcinogenicity	Mutagenicity	Other Hazard Classes
Potassium Citrate	N/A	N/A	N/A	N/A
Potassium Acetate	N/A	N/A	N/A	N/A
Water	N/A	N/A	N/A	N/A

**Note:** Pressurized product uses nitrogen or compressed air as expellant.

### 4. FIRST AID MEASURES

**Prompt medical attention is mandatory in all cases of overexposure to this solution.**

<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.
<b>Skin Contact:</b>	Wash off with warm water and soap. Get medical attention if irritation develops and persists.
<b>Inhalation:</b>	Move to fresh air. For breathing difficulties, oxygen may be necessary. Get medical attention, if needed.
<b>Ingestion:</b>	Rinse mouth. Do not induce vomiting without advice from poison control center. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Notes to physician:</b>	Treat symptomatically. Symptoms may be delayed.

### 5. FIRE FIGHTING MEASURES

**Flammability of the product:** Non-flammable.

**Extinguishing media:**

**Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire. This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a blaze. Use extinguishing agent appropriate to other materials involved. Keep pressurized extinguishers and surroundings cool with water spray as they may rupture or burst in the heat of a fire.

**Special protective equipment for fire-fighters:**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

**EVACUATE ALL PERSONNEL FROM AFFECTED AREA**  
Local authorities should be advised if significant spillages cannot be contained. Surfaces may become slippery after spillage. Keep upwind.

**Environmental precautions:**

Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

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

Should not be released into the environment.  
**Large Spills:** Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.  
**Small Spills:** Wipe up with absorbent material (e.g. cloth, fleece).

Never return spills in original containers for re-use. Following product recovery, flush the area with water. Clean surface thoroughly to remove residual contamination.

## 7. HANDLING AND STORAGE

Pressurized extinguishers should be properly stored and secured to prevent from falling or being knocked over. Do not drag, slide or roll extinguishers. Do not drop extinguishers or permit them to strike against each other. Never apply flame or localized heat directly to any part of the extinguisher or plastic container. Store pressurized extinguishers and plastic containers away from high heat sources. Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight.

**Handling:**

Do not get this material in contact with eyes. Avoid contact with skin. Avoid prolonged exposure. Handle and open container with care.

**Storage:**

Store in cool place. Store in a well-ventilated place. Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage.

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	OSHA PEL	ACGIH TLV	DFG MAK*	EU BLV
Potassium Citrate	N/R	N/R	N/R	N/R
Potassium Acetate	N/R	N/R	N/R	N/R
Water	N/R	N/R	N/R	N/R

\*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 station  
Ventilation system

### Personal protection

**Respiratory:** Use supplied air respiratory protection if required. If respiratory protection is required, follow the requirements of the Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), or equivalent State standard.

**Hands:** Wear glove protection appropriate to the specific operation for which this gas is used.

**Eyes:** Safety glasses with side shields.

**Skin/Body:** Use body protection appropriate for task. Pressurized product may require use of fire retardant clothing. Metal cap safety shoes, are recommended when handling cylinders.



Some applications of this product may require additional or other specific protective clothing. Please consult your supervisor.

**Personal protection:** Safety glasses with side shields, goggles or face shield. Impervious gloves. Protective clothing. Metal cap safety shoes.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Clear to opaque liquid, water based
<b>Molecular Weight:</b>	C2H3KO2: 98.14
<b>Odor:</b>	Mild Odor
<b>Odor Threshold:</b>	No information available
<b>Decomposition Temperature °C:</b>	100 - 120
<b>Freezing Point °C:</b>	No information available
<b>Initial Boiling Point °C:</b>	Approximately 149
<b>Physical State:</b>	Liquid
<b>pH:</b>	8 - 9
<b>Flash Point °C:</b>	None
<b>Auto-ignition Temperature °C:</b>	None
<b>Boiling Point/Range °C:</b>	145/140-155
<b>Melting Point/Range °C:</b>	Not Applicable
<b>Flammability:</b>	Not flammable
<b>Flammability Limits in Air °C:</b>	Upper – Not Flammable; Lower-Not Flammable
<b>Explosive Properties:</b>	None
<b>Oxidizing Properties:</b>	None
<b>Volatile Component (%vol)</b>	Not Applicable
<b>Evaporation Rate:</b>	Not Applicable
<b>Vapor Density:</b>	Not Applicable (Air = 1)
<b>Vapor Pressure:</b>	Not Applicable
<b>Specific gravity:</b>	1.1 – 1.2 at 25 °C
<b>Solubility (@20°C):</b>	Soluble in the following material: water
<b>Partition Coefficient:</b>	No Information Available
<b>Viscosity:</b>	Not Applicable

**10. STABILITY AND REACTIVITY**

**Stability and reactivity:** This product is stable.  
**Incompatibility:** Strong oxidizing agents.  
**Hazardous:**  
**decomposition products:** Not known.  
**Hazardous polymerization:** Carbon oxides, potassium oxides

**11. TOXICOLOGICAL INFORMATION****Acute Effects**

**Inhalation:** None expected.  
**Skin:** Prolonged contact may cause dryness to skin.  
**Eyes:** May cause temporary eye irritation.  
**Ingestion:** No harmful effects expected in amounts likely to be ingested by accident.  
**Potential chronic health effects:** Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU, ACGIH.  
 Mutagenic effects: Not available  
 Teratogenic effects: Not available

Chemical Name	LD50		LC50 (Inhalation)
	Oral	Dermal	
Potassium Citrate	N/A	N/A	N/A
Potassium Acetate	3,250mg/kg (rat)	N/A	N/A
Water	N/A	N/A	N/A

**Reproductive Toxicity:** This product's ingredients are not know to have reproductive or teratogenic effects.  
**Target organs and effects (TOST):** This product is a mild irritant to epithelial tissue, (eyes, mucous membranes , skin) and may aggravate injury. No information was found indicating the product causes sensitization.

**Other Toxicity Categories**

Chemical Name	Germ Cell Mutagenicity	Carcinogenicity	Reproductive	TOST Single Experiment	Aspiration
Potassium Citrate	None	None	None	None	None
Potassium Acetate	None	None	None	None	None
Water	None	None	None	None	None

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity:** A weak environmental toxin. Specific negative impacts are unknown  
**Persistence/Degradability:** Soluble in water; moderate degradation in soil. Rapid photolytic degradation in air  
**Probability of rapid biodegradation:** C<sub>2</sub>H<sub>3</sub>KO<sub>2</sub> Est: 0.792 (Rapid)  
**Anaerobic biodegradation probability:** C<sub>2</sub>H<sub>3</sub>KO<sub>2</sub> Est: - 0.943 (Rapid)  
**Bioaccumulation potential:** Low  
**Bioconcentration factor:** C<sub>2</sub>H<sub>3</sub>KO<sub>2</sub> Est: 3.16 L/kg (wet weight)  
**Bioaccumulation:** Extent unknown but unlikely

**Mobility in soil:** Slow evaporation rate; water soluble, may leach to groundwater

**NOTE:** C<sub>2</sub>H<sub>3</sub>KO<sub>2</sub> – Potassium Acetate

**Other adverse effects:** No other known effects

**Aquatic Toxicity Values – Environment - Research**

Chemical Name	Acute (LC50)	Chronic (LC50)
Potassium Citrate	Not Acutely Toxic	Not Acutely Toxic
Potassium Acetate	298mg/L Fish 96 hr (Phimepales Promelas; 313mg/L Crustaceans 48 hr	N/A
Water	N/A	N/A

**Aquatic Toxicity Values – Environment – Calculated Estimates**

Chemical Name	Acute (LC50)	EC50
Potassium Citrate	3.14e+06 mg/L Fish 96 hr; 1.27e+05 mg/L Daphnid 43 hr	2.33e+05 mg/L Gr. Algae 96 hr
Potassium Acetate	N/A	4403 mg/L Gr. Algae 96 hr
Water	N/A	N/A

**13. DISPOSAL CONSIDERATION**

**Disposal:** This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

**Waste from residues:** Dispose of in accordance with local regulations.

**14. TRANSPORTATION INFORMATION**

**DOT/TC:** Not regulated  
**IATA:** Not Regulated  
**UN Proper Shipping Name:** Not regulated  
**UN Class:** None  
**UN Number:** None  
**UN Packaging Group:** None  
**Marine Pollutant:** No

**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:

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 is Limited Quantity when shipped via highway or rail. Use a non- flammable gas label (class 2.2) when shipping by air.

**15. REGULATORY INFORMATION**

**International Inventory Status:** All ingredients are on the following inventories

<b>Countries</b>	<b>Agency</b>	<b>Status</b>
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

<b>Chemical Name</b>	<b>Dangerous Substance</b>	<b>Organic Solvents</b>	<b>Harmful Substances Whose Names Are to be Indicated on Label</b>	<b>Pollution Release and Transfer Registry (Class II)</b>	<b>Pollution Release and Transfer Registry (Class I)</b>	<b>Poison and Deleterious Substances Control Law</b>
<b>Potassium Citrate</b>	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
<b>Potassium Acetate</b>	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
<b>Water</b>	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

<b>Component</b>	<b>ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying</b>	<b>ISHA – Harmful Substances Requiring Permission</b>	<b>Toxic Classification Listing (TCCL) – Toxic Chemicals</b>	<b>Toxic Release Inventory (TRI) – Group I</b>	<b>Toxic Release Inventory (TRI) – Group II</b>
<b>Potassium Citrate</b>	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
<b>Potassium Acetate</b>	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
<b>Water</b>	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

**European Risk and Safety Phrases:**

<b>EU Classification:</b>	XN	Irritant
<b>R Phrases:</b>	20 36/37/38	Harmful by inhalation Irritating to eyes, respiratory system, skin
<b>S Phrases:</b>	24/25 26 36 38	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 Eye/face protection

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

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

**Clean Water/ Clean Air Act:**

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: None  
**Illinois** – Toxic Substance List: None  
**Kansas** – Section 302/303 List: None  
**Massachusetts** – Substance List: None  
**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: None  
**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

<b>16. OTHER INFORMATION</b>
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**Revision Date: January 11, 2021**  
**Replaces: February 8, 2018**  
**Changes made: Updated to the current year**

**Notice to reader**

This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200, and Globally Harmonized System of Classification and Labeling of Chemicals. Other government regulations must be reviewed for applicability to this mixture. To the best of Strike First Corporation's knowledge,

**the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.**