



SAFETY DATA SHEET

Victory Fire & Gas Inc.

1713 Lewis Street, Bay City, MI. 48706. Office - +1 (989).322.0856.

E-Mail: info@victoryfiregas.com Website <http://www.victoryfiregas.com>

SECTION 1 : IDENTIFICATION: PRODUCT AND COMPANY IDENTIFIER

PRODUCT NAME

VICTORY AVD EXTINGUISHANT

(Victory AVD Extinguisher Agent, Pressurized and Non-pressurized)

OTHER MEANS OF IDENTIFICATION:

Aqueous Vermiculite Dispersion

MODEL CODE OF EXTINGUISHER TYPES:

AVD 6L FIRE EXTINGUISHER

RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES AS ADVISED AGAINST
Firefighting agent, not for human or animal ingestion or drug use

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

Supplier	VICTORY FIRE & GAS INC
Street	1713 Lewis Street
Postal City/Postal Code/Country	Bay City, MI 48706, USA
Company telephone	+1 (989) 322 0856 – 9am- 5pm AET Mon- Friday
Website / Email	http://www.victoryfiregas.com info@victoryfiregas.com
Dept Responsible for information	Compliance
Emergency telephone number	CHEMTREC No.(800) 424 9300 /+1(703) 527 3887 (International)

Note: Safety data sheet in accordance with OSHA Hazard Communication Standards (19 CFR 1910.,1200, the Canadian Hazardous Products Regulations (HPR) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

SECTION 2 : HAZARDS IDENTIFICATION:

This SDS covers the product listed above sold in pressurized and non-pressurized containers.

GHS classifications for both forms are listed.


Classification according to the global harmonized system of classification and labelling of chemicals (GHS) including work, health, and safety regulations.

Health		Environmental	Physical
Acute Toxicity:	Not classified	Not Classified	Compressed Gas or for non-pressured Not Classified
Skin Corrosion / Irritation:	Not classified		
Respiratory / Skin Sensitization:	Not classified		
Eye Category:	Not classified		
Carcinogen:	Not classified		

LABEL ELEMENTS

Non-pressurized: NONE

Pressurized:

Hazard Pictograms	
Pictogram Code	GHS04 Gas Cylinder
Signal Word	WARNING
Hazard Statements	
Physical Hazards	H280 Contains gas under pressure; may explode if heated
Health Hazards	None
Environmental Hazards	None
Combinations	
Precautionary Statements	
General	
Prevention	
Response	
Storage	P410 + P403 Protect from sunlight. Store in well ventilated place.
Disposal	

SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS:

MIXTURE INGREDIENTS (*)

Ingredients (Designation)	CAS No.	Concentration (Weight %)
Vermiculite	1318-00-9	5-20
Proprietary ingredients (**)	N/A	<1
Water	7732-18-5	80-95
Nitrogen (Expellant only when extinguisher is supplied pressurized)	7727-37-9	-

(*) This product (extinguishing agent) is a mixture / rounded values / not product specification.

(**) Rheology modifiers / syneresis control agents – no hazardous substances. Registered or exempt from registration.

Pressurized with nitrogen gas – a non-toxic, non-flammable compressed gas.

SECTION 4 : FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

General Information

No serious adverse effects are anticipated.

Inhalation

Not anticipated. Aqueous product – treatment as for water.

Remove exposed person to fresh air, keep warm and at rest.

**Skin Exposure**

If irritation occurs, then wash affected skin with plenty of soap and water.

Get medical attention if irritation persists after washing.

Eye Exposure

Immediately flush with clean water or eye wash solution, holding the eyelids apart for at least 15 minutes.

Seek medical attention if irritation persists.

Ingestion

There are no known adverse effects for small quantities and hence first aid measures are not usually required.

For larger quantities, wash mouth out with water and give water to drink. Do not induce vomiting.

If gastrointestinal symptoms occur, then seek medical advice.

Medical Conditions possible aggravated by exposure

Significant acute or delayed effects are not anticipated.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Note to Physicians. Treat symptomatically. See LABEL ELEMENTS

SECTION 5 : FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Product is an extinguishing media and therefore non-flammable / non-combustible.

Use extinguishing media appropriate for the materials involved. Keep pressurized containers and surroundings cool with water spray as they may rupture or burst when exposed to heat of a fire.

The extinguishing agent is not sensitive to static discharge or mechanical impact.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Spilt material may be a slip hazard.

ADVICE FOR FIRE FIGHTERS

Appropriate personal protective equipment for fire fighters:

Fire fighters should wear protective clothing as appropriate for specific fire conditions.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

Avoid eye and skin contact. Wear appropriate personal protective equipment and clothing to minimize exposure.

ENVIRONMENTAL PRECAUTIONS

If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations. Dispose of waste according to the applicable local and national regulations.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Clean up using absorbent materials. Bag and drum for disposal as required by local, state, and federal regulations in place.



SECTION 7 : HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Advice on Safe Use of Product:

Maintain high standards of personal hygiene i.e., washing hands prior to eating, drinking, smoking, or using toilet facilities.

Advice on Safe Handling:

Keep extinguishing agent in original container or fire extinguisher. Keep containers sealed when not in use.

Maintain extinguisher in accordance with local / national codes. Wear appropriate PPE when handling or maintaining equipment (see section 8). Use only in a well ventilated area. Maintain high standards of personal hygiene i.e., washing hands prior to eating, drinking, smoking, or using toilet facilities.

Environmental Precautions:

Ensure that storage conditions comply with applicable local and national regulations.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Technical measures and storage conditions:

Always store in dry, cool area out of direct sunlight in original container with lid tightly closed or within extinguisher.

Requirements For Storage Rooms And Containers:

Store in suitable, labeled containers. Keep containers closed when not in use. Ensure that storage conditions comply with applicable local and national regulations. Storage areas should be kept dry & clean and free from flammable materials.

Ensure that containers are properly vented to prevent build up pressure.

Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight.

Do not mix with other extinguishing agents. Incompatible with strong oxidizing agents and strong acids.

Pressurized extinguishers should be properly stored and secured to prevent falling or being knocked over. Do not drag or slide pressurized containers. Do not drop pressurized containers or permit them to strike against each other.

Inspect extinguishers frequently in accordance with local / national regulations.

Never apply flame or localized heat directly to any part of the pressurized container.

Store pressurized containers away from high heat sources. Do not allow any part of a cylinder to be exposed above +60°C (+140°F).

Suitable Container/Equipment Material:

No information available.

Unsuitable Container/Equipment Material:

No information available.

Information on combined storage:

No information available.

SECTION 8 : EXPOSURE CONTROLS AND PERSONAL PROTECTION

CONTROL PARAMETERS/OCCUPATIONAL EXPOSURE LIMIT VALUES EXPOSURE GUIDELINES

Available exposure limits for ingredients are listed below where available: See Notes (*)

Substance	OSHA PEL	ACGIH TLV
Vermiculite	15 mg m ⁻³ [TWA, total particulates, not otherwise regulated]	10 mg m ⁻³ [TWA, inhalable particulates, not otherwise regulated]
	5 mg m ⁻³ [TWA, respirable particulates, not otherwise regulated]	3 mg m ⁻³ [TWA, respirable particulates, not otherwise regulated]
Water	Not regulated	Not regulated
Nitrogen gas	Not regulated	Not regulated

(*)(PNOC) – Particulates not otherwise classified (ACGIH) or Particulates not otherwise regulated (OSHA)

(PEL) - Permissible exposure limit. The permissible exposure limit (PEL or OSHA PEL) is a legal limit in the United States for exposure of an employee to a chemical substance.

(TLV) - Within the context of workplace safety, represents the maximum airborne concentration of a chemical substance to which an adult can be exposed to in the workplace over the course of his or her lifetime without suffering significant harm.

EXPOSURE CONTROLS

Appropriate Engineering Controls:

During the use of this product on fires, exhaust gases and products of incomplete combustion are the main respiratory hazards. In the manufacture of this product, employers and employees must use their collective judgment in determining the appropriate PPE. The need for respiratory protection is not likely for short-term use in well-ventilated areas. Use with good general ventilation. Systems under pressure should be regularly checked for leakages.

Individual Protective Measures, e.g., Personal Protective Equipment:

The following recommendations should be considered:

Eye Protection: Safety goggles.

Skin Protection: No specific protection but gloves and coveralls are advised.

Respiratory Protection: No specific recommendation for the aqueous product.

Environmental Exposure Controls

N/A

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES – EXTINGUISHING AGENT

Appearance /Physical State:/ color:	Gold / brown liquid suspension
Odor	Slightly earthy smell
Odor threshold	No data available
pH	7-10
Melting Point /freezing point	Dried material > 1300°C (2372°F)
Initial boiling point and boiling range	Aqueous component b.p. approx. 100°C (212°F)
Flash Point (°C)	Non-flammable
Evaporation rate	No data available
Flammability (solid, gas)	Non-flammable
Upper / lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	Approx 1.1
Solubility(ies)	Product is miscible in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No standardized data available
Explosive properties	Not explosive
Oxidizing properties	No data available

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES – PROPELLANT (*)

Appearance	Colorless
Odor:	Odorless
pH	N/A
Melting Point	N/A
Density (at 20°C)	0.0725lb/ft ³ as a vapor (0.00116 g/cm ³)
Flash Point (°C)	Non-flammable
Explosive of Oxidizing Properties	None
Water Solubility (g/l)	N/A
Flammability Range (Vol% In Air):	Non-flammable
Other Information:	N/A

(*) Only when extinguisher is pressurized with Nitrogen.

SECTION 10 : STABILITY AND REACTIVITY

CHEMICAL STABILITY

No special measures are necessary. Stable under normal ambient storage and handling conditions.

REACTIVITY

Reacts with incompatible materials, for example strong mineral acids and HF.

Pressurized containers may rupture or explode when exposed to heat of a fire.

CONDITIONS TO AVOID

Extremes of temperature over +60°C (+140°F)

INCOMPATIBLE MATERIALS

Strong acids or oxidants. Avoid contact with alkali sensitive metals or alloys e.g., aluminum, lead, tin, zinc, magnesium. Do not mix with other extinguishing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

None known.

HAZARDOUS POLYMERIZATION

Does not occur.

SECTION 11 : TOXICOLOGICAL INFORMATION

INFORMATION ON POSSIBLE ROUTES OF EXPOSURE

This chemical formulation has not been tested for health effects.

Acute Toxicity	Non-toxic
Chronic toxicity	No data available
Eye Contact:	No data available
Skin Contact:	No data available
Inhalation:	Not expected
Ingestion:	Not expected
Reproductive toxicity	No data available
Nitrogen (*) Pressurizing gas	Simple asphyxiant. Exposure at high concentrations can cause suffocation by reducing the available oxygen

(*) Only when extinguisher is pressurized with Nitrogen.



ACUTE TOXICITY DATA:

The following data is available for components of this product greater than 1% by weight in concentration.

Substance	LD50 Oral	LD50 Dermal	LC50 (inhalation)
Vermiculite	Not relevant / available	Not relevant / available	Not relevant / available
Proprietary ingredients	Not relevant / available	Not relevant / available	Not relevant / available
Water	Not applicable	Not applicable	Not applicable

SECTION 12 : ECOLOGICAL INFORMATION

INFORMATION ON ELIMINATION:

No known specific negative impacts.

DEGRADEABILITY:

Not readily biodegradable.

BIOACCUMILATION POTENTIAL

None

MOBILITY IN SOIL

Not applicable

ENVIRONMENTAL PROTECTION

Contains no heavy metal salts. Residue from fires extinguished with this material may be hazardous.

SECTION 13 : DISPOSABLE INFORMATION

DISPOSABLE METHODS

This product is not an RCRA characteristically hazardous or listed hazardous waste.

Dispose of according to state or local laws, which may be more restrictive than federal regulations.

No harm to the environment is expected from this preparation. Residue from fires extinguished with this material may be hazardous; dispose of waste according to applicable local and national regulations.

UNCLEANED PACKAGING

Disposal according to official regulations.

SECTION 14 : TRANSPORT INFORMATION

This product is not defined as a hazardous material under U.S. Department of Transportation 49 CFR 172, or by Transport Canada "Transportation of Dangerous Goods" regulations. Please Note: Although this material is not considered hazardous, when contained in a stored pressure fire extinguisher pressurized with a non-flammable gas, the extinguisher itself is considered a hazardous material by the U.S. Department of Transportation (USDOT) and Transport Canada (TC). The proper shipping name shall be Fire Extinguisher and the UN Identification Number is UN 1044. The USDOT hazard class is



Limited Quantity when pressurized to less than 241 psig and when shipped via highway or rail. Use Class 2.2, Non- Flammable Gas, when shipping via air and consult latest IATA and IMDG Regulations prior to shipping by air or water.

See table below.

This section is believed to be accurate at time of creation. It is not intended to be a complete statement or summary of all applicable laws, rules, or hazardous material regulations in place at time of shipping.

Fire Extinguishers	
DOT CFR 172.101 Data	Fire Extinguishers, 2.2, UN1044
UN Proper Shipping name	Fire Extinguishers
UN Class	(2.2)
UN Number	UN1044
UN Packaging group	Not applicable
Classification for Air / Transportation (IATA)	Consult current IATA Regulations prior to shipping by air
Classification for Water / Transport IMDG	Consult current IATA Regulations prior to shipping by water

SECTION 15 : REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATION SPECIFIC FOR THE SUBSTANCE

NOT Classified as hazardous according to the Globally Harmonized System of classification and labeling of chemicals (GHS) including Work, health, and Safety regulations. Not classified as a Scheduled Poison according to the Standard for the uniform Scheduling of medicines and Poisons (SUSMP).

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

Country	Agency	Status
USA	TSCA	Yes
Canada	DSL	Yes

U.S. Federal Regulatory Information:

SARA 313:

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA): this product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

None pressurized: None of the chemicals in this product are under SARA reporting requirements or have SARA Threshold Planning Quantities or CERCLA Reportable Quantities or regulated under TSCA 8(d).

Pressurized: SARA Title III Section 311/312 Categorization is Pressure Hazard.

SARA 311-312 Hazard Categories

Acute Health Hazard	No
Chronic health hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	Yes (Only if material is pressurized extinguisher)
Reactive Hazard	No



Clean Water/Clean Air Acts

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

State Regulatory Information:

Chemicals in this product covered under the specific State regulations noted.

Alaska Designated Toxic and Hazardous Substances	None
California Permissible Exposure Limits for Chemical Contaminants	None
Florida Substance list	None
Illinois Toxic Substance List - None	None
Kansas Section 302/303 List - None	None
Massachusetts Substance list- Mica dust Minnesota List of Hazardous Substances	None
Missouri Employer Information/Toxic Substance List	None
Minnesota List of Hazardous Substances	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	No
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	

CHEMICAL SAFETY ASSESSMENT:

Chemical safety assessments for substances in this mixture were not conducted.

OTHER:

Canada : WHMIS Hazard Class: A – Compressed Gas.



SECTION 16 : OTHER INFORMATION

KEY LITERATURE REFERENCES AND SOURCES:

NFPA RATINGS

US Nation Fire Protection Agency (NFPA) hazard ratings:
(Scale of 0 to 4, with 0 = lowest to 4 = highest hazard,
refer to NFPA for details related to the relative rating for each category)

Health: 0

Flammability: 0

Reactivity: 0

Special Hazard: None

HMIS Rating

Health: 0

Flammability: 0

Physical Hazard: 0

Personal Protection: C

LEGEND

ACGIH	American Conference of Governmental Industrial Hygienists
CAS#	Chemical Act Service Number
EC50	Effect Concentration 50%
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration 50%
LD50	Lethal Dose 50%
N/A	Denotes no applicable information found or available
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit
STOT	Specific Target Organ Toxicity
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act

INFORMATION AND REFERENCES

The information provided is given in good faith. The information and recommendations in this SDS are based on sources believed to be accurate. Victory Fire and Gas assumes no responsibility for accuracy or completeness of information provided. It is the user's responsibility to determine suitability or completeness of information.

We make **NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED**, with respect to such information, and we assume no liability resulting from its use. Users should ensure that any use or disposal of the material in accordance with applicable Federal, State, and local laws and regulations.

Please refer to our internet website for more information: www.victoryfiregas.com.

For contact information please go to page 1 of this SDS.

END OF SDS.