



Safety Data Sheet

Black Widow Dry Chemical Fire Extinguishant



1. Identification

Product identifier	Black Widow Dry Chemical Fire Extinguishant
Product code	723190
Other means of identification	None.
Recommended use of the chemical and restrictions on use	Fire Extinguishing Powder.
Manufacturer	Firetrace Aerospace, LLC 8435 N. 90th Street, Suite 2 Scottsdale, AZ 85258 Tel. 480-607-2709 (7am - 4pm) Fax 1-480-315-1316 www.ftaero.com info@ftaero.com
Emergency phone number	1-800-662-2927 (US & CA toll free)

2. Hazard identification

Summary	Avoid breathing dust. Use in a manner that avoids generating dust. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
WHMIS 2015/OSHA HCS 2012/GHS	
Not Regulated under WHMIS 2015/GHS	
P101: If medical advice is needed, have product container or label at hand. P102: Keep out of reach of children. P103: Read label before use. P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.	

3. Composition/information on ingredients

Common name	CAS	Weight % content
Potassium carbamoylcarbamate	26479-35-6	50 - 70 %
Triiron tetraoxide	1317-61-9	27 - 30 %
Iron (III) Oxide	1309-37-1	27 - 30 %
Amorphous silica	7631-86-9	2 - 4 %
Mica	12001-26-2	1 - 3 %
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	68909-20-6	0.1 - 1 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Wash skin with warm water and mild soap. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with water. Never give anything by mouth if victim is unconscious or convulsing. If a problem develops or persists, seek medical attention.
Other	No information available.
Symptoms	Dust and powder can irritate the eye, skin and respiratory tracts.
Notes to the physician	Treat symptomatically. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting measures

Suitable extinguishing media	Use appropriate extinguisher for surrounding fire.
Specific hazards arising from the chemical	This product is used to contain fires.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	No information available for this product.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Not hazardous for the environment.
Methods and materials for containment and cleaning up	Ventilate the area well. Vacuum or sweep up dust and place in an appropriate waste disposal container. Avoid generating dusty conditions. Dispose via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling	Use only in well ventilated area. Avoid breathing dust. Use in a manner that avoids generating dust. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Generally speaking, working cleanly and following basic precautionary measures will greatly minimize the potential for harmful exposure to this product under normal use conditions. Do not eat, do not drink and do not smoke
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during use. Keep containers tightly closed when not used. After use, wash hands with soap and water. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities Store tightly close and in properly labelled container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible materials (see section 10).

Storage temperature 0 to 50°C (32 to 122°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health Amorphous silica: 3000 mg/m³.
Iron (III) Oxide: 2500 mg/m³, value as iron.
Triiron tetraoxide: 2500 mg/m³, value as iron.

Iron (III) Oxide	TWA (8h)	Respirable Dust	5 mg/m ³	AB , ACGIH, BC, ON, RSST
		Fume and Dust	10 mg/m ³	OSHA
Triiron tetraoxide	TWA (8h)	Respirable Dust	5 ppm	ACGIH , BC, ON
		Total Dust	10 ppm	RSST
Amorphous silica	TWA (8h)	Respirable Dust	3 mg/m ³	ACGIH , BC
		Respirable Dust	5 mg/m ³	OSHA
		Respirable Dust	6 mg/m ³	RSST
		Total Dust	10 mg/m ³	ACGIH , BC, ON
		Total Dust	15 mg/m ³	OSHA
Mica	TWA (8h)		0.7 f/cc	OSHA
		Respirable Dust	3 mg/m ³	ACGIH , BC, ON, RSST
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	TWA (8h)	Inhalable Fraction	3 mg/m ³	ACGIH
		Total Dust	10 mg/m ³	ACGIH

Appropriate engineering controls Provide sufficient mechanical (general and/or local exhaust) to keep the airborne concentrations of dust below their respective occupational exposure limits.

Individual protection measures

Eye	Wear safety glasses. If risk of contact with eyes wear chemical splash goggles.
Hands	In case of prolonged contact wear neoprene or nitrile gloves. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear.
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code.
Respiratory	Respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and CSA Standard Z 94.4 and approved by NIOSH / MSHA. For nuisance exposures use type N95 particle respirator.

Feet	Wear safety shoes.
 Safety glasses Nitrile gloves	

9. Physical and chemical properties

Physical state	Solid powder	Flammability	Non-flammable.
Colour	Grey	Flammability limits	N/Ap.
Odour	Ammonia	Flash point	N/Ap.
Odour threshold	N/Av.	Auto-ignition temperature	N/Ap.
pH	8.0 to 9.0	Sensibility to electrostatic charges	N/Av.
Melting point	N/Av.	Sensibility to sparks and/or friction	N/Av.
Freezing point	N/Av.	Vapour density	N/Ap. (Air = 1)
Boiling point	N/Ap.	Relative density	>1 kg/L (Water = 1)
Solubility	Partially soluble in water.	Partition coefficient n-octanol/water	N/Ap.
Evaporation rate	N/Ap.	Decomposition temperature	N/Av.
Vapour pressure	N/Ap.	Viscosity	N/Ap.
Percent Volatile	0%	Molecular mass	N/Ap.

N/Av.: Not Available N/Ap.: Not Applicable Und.: Undetermined N/E: Not Established

10. Stability and reactivity

Reactivity	No information available for this product.
Chemical stability	Stable under normal conditions of use.
Possibility of hazardous reactions (including polymerizations)	Hazardous polymerization will not occur under recommended storage.
Conditions to avoid	Avoid contact with incompatible materials.
Incompatible materials	Strong acids.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.


11. Toxicological information

Numerical measures of toxicity	<p>Potassium carbamoylcarbamate</p> <p>Triiron tetraoxide</p> <p>Iron (III) Oxide</p> <p>Amorphous silica</p> <p>Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica</p>	<p>Ingestion >2000 mg/kg Rat LD50</p> <p>Inhalation >2.26 mg/l/4h Rat LC50</p> <p>Skin >2000 mg/kg Rat LD50</p> <p>Ingestion >5000 mg/kg Rat LD50</p> <p>Skin >2000 mg/kg Rabbit LD50 >10000</p> <p>Ingestion mg/kg Rat LD50</p> <p>Skin >2000 mg/kg Rabbit LD50</p> <p>Ingestion >3300 mg/kg Rat LD50</p> <p>Inhalation >2 mg/l/4h Rat LC50</p> <p>Skin >5000 mg/kg Rabbit LD50</p> <p>Ingestion >5000 mg/kg Rat LD50</p> <p>Skin >2000 mg/kg Rat LD50</p>									
Likely routes of exposure	<p>Inhalation.</p>										
Delayed, immediate and chronic effects	<p>Eye contact May cause redness and irritation to eyes. Eye Irritation/Corrosion, Rabbit: tests performed with each ingredient of this mixture gave not irritating to slightly irritating results. The mechanical friction can increase eyes irritation.</p> <p>Skin contact May cause redness and irritation of the skin. Skin Irritation/Corrosion, Rabbit : tests performed with each ingredient of this mixture gave not irritating to slightly irritating results. The mechanical friction can increase skin irritation.</p> <p>Inhalation Overexposure may cause respiratory tract irritation.</p> <p>Ingestion Low degree of acute toxicity. Ingestion of large quantities may cause gastrointestinal irritation.</p> <p>Respiratory or skin sensitization Ingredients present at levels greater than or equal to 0.1% of this product are skin or respiratory sensitizers.</p> <table border="0" data-bbox="277 1073 1105 1178"> <thead> <tr> <th data-bbox="277 1073 537 1136">IARC/NTP Classification</th> <th data-bbox="537 1073 927 1136">Common name</th> <th data-bbox="927 1073 1105 1136">IARC NTP</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 1115 537 1136"></td> <td data-bbox="537 1115 927 1136">Potassium carbamoylcarbamate</td> <td data-bbox="927 1115 1105 1136">- -</td> </tr> <tr> <td data-bbox="277 1136 537 1157"></td> <td data-bbox="537 1136 927 1157">Amorphous silica</td> <td data-bbox="927 1136 1105 1157">- -</td> </tr> </tbody> </table> <p data-bbox="537 1178 1105 1220">IARC : 1- Carcinogenic; 2A- Probably carcinogenic; 2B- Possibly carcinogenic. NTP : K- Known to be carcinogens; R- Reasonably anticipated to be carcinogens.</p> <p>Carcinogenicity Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.</p> <p>Mutagenicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effect.</p> <p>Reproductive toxicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause effects on reproduction.</p> <p>Specific target organ toxicity - single exposure No target organ is listed.</p> <p>Specific target organ toxicity - repeated exposure No target organ is listed.</p>		IARC/NTP Classification	Common name	IARC NTP		Potassium carbamoylcarbamate	- -		Amorphous silica	- -
IARC/NTP Classification	Common name	IARC NTP									
	Potassium carbamoylcarbamate	- -									
	Amorphous silica	- -									
Interactive effects	<p>No information available for this product.</p>										
Other information	<p>The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation of the dust mixture was calculated to be greater than 5 mg/L/4h. This value is not classified according to GHS. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.</p>										

12. Ecological information

Ecological toxicity	Fish - Pimephales promelas [semi-static]	LC50 >93.5 mg/L; 96h (potassium carbamoylcarbamate) OECD 203
	Aquatic Invertebrate - Daphnia Magna (semi-static)	EC50 >88.4 mg/L; 48h (potassium carbamoylcarbamate) OECD 202
	Algae, Pseudokirchneriella subcapitata	EC50 >27.4 mg/L; 72h (potassium carbamoylcarbamate) OECD 201
	Fish - Danio rerio (static)	LC50 >10000 mg/L; 96h (triiron tetraoxide) OECD 203
	Aquatic Invertebrate - Daphnia Magna, Water flea (static)	EC50 >100 mg/L; 48h (iron oxide) OECD 202
Persistence	Contains an or many ingredients that may be persistent in aquatic environment. Potassium carbamoylcarbamate is not persistent in the environment.	
Degradability	Potassium carbamoylcarbamate is chemically unstable at acidic pH. It is also readily biodegradable at 78.8% on day 7, and 84.2% on day 14 (OECD Guideline 301D). The term biodegradability, as such, is not applicable to inorganic compounds.	
Bioaccumulative potential	No information available for this product. Potassium carbamoylcarbamate has a partition factors Log Kow of -1.08 and a low potential for bioconcentration (BCF) estimated at 3, indicating that it should not accumulate in the food chain. Bioaccumulation of iron oxide salts may occur in aquatic and terrestrial animals and plants, but very little bioaccumulation occurs in the food chain.	
Mobility in soil	No information available for this product. The estimated Koc value of 0.35 suggests that Potassium carbamoylcarbamate is expected to have very high mobility in soil and a low potential for adsorption to organic carbon. Iron oxide compounds are poorly soluble in water; their distribution in the environment is primarily with the soil and sediment. There is little partition in water and in air.	
Other adverse effects	This chemical does not deplete the ozone layer.	

13. Disposal considerations

Container 	Important! Prevent waste generation. Use in full. Waste product may be send to landfill. Rinse and recycle empty container, if possible. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.
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14. Transport information

UN Number	UN
UN Proper Shipping Name	Not regulated by TDG (Canada) and 49 CFR DOT (USA).
Environmental hazards	This material is not listed as a marine pollutant.
Special precautions for user	No information available for this product.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Emergency response guidebook 2012	
IMO/IMDG - International Maritime Transport	

Classification	Not regulated
IATA - International Air Transport Association	
Classification	Not regulated
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.	

15. Regulatory information

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Potassium carbamoylcarbamate	26479-35-6				
Triiron tetraoxide	1317-61-9		X		
Iron (III) Oxide	1309-37-1		X		
Amorphous silica	7631-86-9		X		
Mica	12001-26-2		X		
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	68909-20-6		X		

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act

- DSL: Domestic Substances List Inventory

- NDSL: Non-Domestic Substances List Inventory

- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CERCLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Priority
Potassium carbamoylcarbamate	26479-35-6	X								
Triiron tetraoxide	1317-61-9	X								
Iron (III) Oxide	1309-37-1	X								
Amorphous silica	7631-86-9	X								
Mica	12001-26-2	X								
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	68909-20-6	X								

Other regulations

- California Proposition 65:
No ingredients are listed.

WHMIS 1988



Non-WHMIS controlled

HMIS

1	Health
0	Flamability
0	Reactivity
X	Protective Equipment

NFPA



16. Other information

Date (YYYY-MM-DD)	Firetrace Aerospace, LLC 2016-02-01
Version	01
Other information	<p>REFERENCES:</p> <ul style="list-style-type: none">- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, http://hazmap.nlm.nih.gov/index.php- TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, http://toxnet.nlm.nih.gov/- NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, http://www.cdc.gov/niosh/npg/npg.html- Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca <p>ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association HMIS: Hazardous Materials Identification System NFPA: National Fire Protection Association OSHA: Occupational Safety and Health Administration (USA) NIOSH: National Institute for Occupational Safety and Health NTP: National Toxicology Program RSST: Règlement sur la santé et la sécurité du travail (Québec) GHS: Globally Harmonized System IARC: International Agency for Research on Cancer IDLH: Immediately Dangerous to Life or Health STEL: Short Term Exposure Limit (15 min) TWA: Time Weighted Averages WHMIS: Workplace Hazardous Materials Information System</p> <p>To the best of our knowledge, the information contained herein is accurate. However, neither Préventis System nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.</p>