



Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard (29CFR 1910.1200)

Product name D7 AFC-380

REV. 180516 v1

1. Identification

1.1. Product Identifier

Product name D7 AFC-380

1.2. Other means of identification

Product code AFC-380
Synonyms None
Chemical Family Fire fighting foam, surfactant

1.3. Recommended use of the chemical and restrictions on use

Recommended use Fire extinguishing agent
Uses advised against None known

1.4. Details of the Supplier of the Safety Data Sheet

Company Name Decon7 Systems LLC
8541 East Anderson Dr STE 106
Scottsdale, AZ 85255
Telephone: 480-339-2858
www.decon7.com

Contact point Regulatory Affairs 480-339-2858
E-mail address info@decon7.com

1.5. Emergency Telephone Number

Emergency telephone CHEMTREC 800-424-9300 or 703-527-3887

2. Hazards Identification

Classification

OSHA Regulatory Status

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

Skin Corrosion/Irritation - Category 2
Serious eye damage/eye irritation - Category 1

2.2. Label Elements

Signal Word

DANGER

hazard statements

CAUSES SKIN IRRITATION
Causes serious eye damage



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

Store in a well-ventilated place. Keep cool.

Disposal

Dispose of contents/container to an approved waste disposal plant.

2.3. Hazards Not Otherwise Classified (HNOC)

Not Applicable.

2.4. OTHER INFORMATION

Toxic to aquatic life with long lasting effects.

Unknown Acute Toxicity 1.8% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/information on Ingredients**3.1. Mixture**

The following component(s) in this product are considered hazardous under applicable OSHA(USA)

Chemical name	CAS No	weight-%
Sodium Alkene sulphonate	68439-57-6	5 - 10
2-(2-Butoxyethoxy)ethanol	112-34-5	3 - 7
Isobutanol	78-83-1	1 - 5
Lauryl Alcohol	112-53-8	0.1 - 1
1-Tetradecanol	112-72-1	0.1 - 1

4. First aid measures**4.1. Description of first aid measures**

General Advice	Keep victim under observation. Move victim to a safe isolated area. Move victim to fresh air. Remove contaminated clothing and shoes.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. Get medical attention if irritation develops and persists.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately if symptoms occur.)
Ingestion	Rinse mouth. Do not induce vomiting without medical advice. If swallowed, call a poison control center or physician immediately.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms No information available.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures**5.1. Suitable Extinguishing Media**

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

5.2. Unsuitable Extinguishing Media

None.

5.3. Specific Hazards Arising from the Chemical

None known.

Hazardous Combustion Products Carbon oxides, Nitrogen oxides (NOx), Oxides of sulfur

5.4. Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

5.5. Protective Equipment and Precautions for Firefighters

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

6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal Precautions Ensure adequate ventilation, especially in confined areas.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental Precautions

Environmental Precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

6.3. 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 Pick up and transfer to properly labeled containers.

7. Handling and Storage**7.1. Precautions for Safe Handling**

Advice on safe handling Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials Strong oxidizing agents. Strong acids. Strong bases.

8. Exposure Controls/Personal Protection

8.1. Control Parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-(2-Butoxyethoxy)ethanol 112-34-5	TWA: 10 ppm inhalable fraction and vapor	-	-
Isobutanol 78-83-1	TWA: 50 ppm	-	IDLH: 1600 ppm TWA: 50 ppm TWA: 150 mg/m ³

ACGIH (American Conference of Governmental Industrial Hygienists) OSHA (Occupational Safety and Health Administration of the US Department of Labor) NIOSH IDLH Immediately Dangerous to Life or Health

8.2. Appropriate Engineering Controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

8.3. Individual protection measures, such as personal protective equipment

Eye/Face Protection Avoid contact with eyes. Tight sealing safety goggles.

Skin and Body Protection Wear protective gloves and protective clothing.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Ventilation Use local exhaust or general dilution ventilation to control exposure with applicable limits

8.4. General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State	Liquid	Color	Opaque Amber
Odor	Slight solvent		
odor threshold	No data available		

<u>Property</u>	<u>VALUES</u>	<u>Remarks • Method</u>
pH	6.5 - 8.0	
Melting point/freezing point	-2 - 3 °C / 28 - 38 °F	
Boiling point / boiling range	100 °C / 212 °F	
Flash Point	> 93 °C / > 200 °F	
Evaporation Rate	No data available	
flammability (solid, gas)	No data available	

Flammability limit in air

Upper flammability limit:	No data available
Lower flammability limit:	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific gravity	1.00 - 1.20
Water Solubility	Completely soluble
Solubility in Other Solvents	No data available
Partition coefficient	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Kinematic viscosity	No data available

10. Stability and Reactivity**10.1. Chemical Stability**

Stable under recommended storage conditions.

10.2. Reactivity

No data available

10.3. Possibility of hazardous reactions

None under normal processing.

hazardous polymerization Hazardous polymerization does not occur.

10.4. Conditions to Avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NO_x). Oxides of sulfur.

11. Toxicological Information**11.1. Information on Likely Routes of Exposure**

Product information	no data available
INHALATION	no data available.
Eye Contact	no data available.
Skin contact	no data available.
INGESTION	no data available.

Acute Toxicity

Chemical name	Oral LD50	dermal LD50	Inhalation LC50
Sodium Alkene sulphonate 68439-57-6	= 2310 mg/kg (Rat)	= 6300 mg/kg (Rabbit)	-
2-(2-Butoxyethoxy)ethanol 112-34-5	= 3384 mg/kg (Rat)	= 2700 mg/kg (Rabbit)	-
Isobutanol 78-83-1	= 2460 mg/kg (Rat)	= 3400 mg/kg (Rabbit)	> 6.5 mg/L (Rat) 4 h
Lauryl Alcohol 112-53-8	> 5000 mg/kg (Rat)	-	-
1-Tetradecanol 112-72-1	> 5000 mg/kg (Rat)	> 5 g/kg (Rabbit)	-

11.2. Information on Toxicological Effects

Symptoms No information available.

11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin Corrosion/Irritation Mild Irritant

Serious eye damage/eye irritation Mild Irritant

sensitization No information available.

Germ Cell Mutagenicity No information available

carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Reproductive Toxicity No information available.

STOT - Single Exposure No information available.

STOT - Repeated Exposure No information available.

Target organ effects Central Nervous System, EYES, Respiratory System, skin.

Aspiration Hazard No information available.

11.4. Numerical Measures of Toxicity - Product information

The following values are calculated based on chapter 3.1 of the GHS document mg/kg mg/l

12. Ecological Information

12.1. ecotoxicity

Toxic to aquatic life with long lasting effects

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Sodium Alkene sulphonate 68439-57-6	-	LC50 96 h = 12.2 mg/L Brachydanio rerio semi-static LC50 96 h 1.0 - 10.0 mg/L Brachydanio rerio static	-
2-(2-Butoxyethoxy)ethanol 112-34-5	EC50 96 h > 100 mg/L Desmodesmus subspicatus	LC50 96 h = 1300 mg/L Lepomis macrochirus static	EC50 24 h = 2850 mg/L Daphnia magna EC50 48 h > 100 mg/L Daphnia magna
Isobutanol 78-83-1	EC50 48 h = 230 mg/L Desmodesmus subspicatus	LC50 96 h 1370 - 1670 mg/L Pimephales promelas flow-through LC50 96 h = 375 mg/L Pimephales promelas static LC50 96 h 1480 - 1730 mg/L Lepomis macrochirus flow-through LC50 96 h 1120 - 1520 mg/L Oncorhynchus mykiss flow-through	EC50 48 h = 1300 mg/L Daphnia magna EC50 48 h 1070 - 1933 mg/L Daphnia magna Static
Lauryl Alcohol 112-53-8	EC50 96 h = 0.62 mg/L Desmodesmus subspicatus	LC50 96 h = 1.01 mg/L Pimephales promelas flow-through LC50 96 h = 0.1855 mg/L Pimephales promelas	EC50 48 h = 320 mg/L Daphnia magna
1-Tetradecanol 112-72-1	EC50 96 h > 10 mg/L Desmodesmus subspicatus	LC50 96 h > 10000 mg/L Brachydanio rerio	-

n-Butanol 71-36-3	EC50 72 h > 500 mg/L Desmodesmus subspicatus EC50 96 h > 500 mg/L Desmodesmus subspicatus	LC50 96 h = 1910000 µg/L Pimephales promelas static LC50 96 h 100000 - 500000 µg/L Lepomis macrochirus static LC50 96 h = 1740 mg/L Pimephales promelas flow-through LC50 96 h 1730 - 1910 mg/L Pimephales promelas static	EC50 48 h = 1983 mg/L Daphnia magna EC50 48 h 1897 - 2072 mg/L Daphnia magna Static
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12.2. Persistence and Degradability

No information available.

12.3. Bioaccumulation

No information available.

Chemical name	Partition coefficient
Isobutanol 78-83-1	0.79
Lauryl Alcohol 112-53-8	5.36
1-Tetradecanol 112-72-1	6.03

12.4. Other Adverse Effects

No information available

13. Disposal Considerations**13.1. Waste Treatment Methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Do not reuse container.

14. Transport Information**DOT** NOT REGULATED**TDG** NOT REGULATED**MEX** NOT REGULATED**ICAO (air)** NOT REGULATED**IATA** NOT REGULATED**IMDG** NOT REGULATED**15. Regulatory Information****15.1. International Inventories****TSCA** Complies

DSL/NDSL	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

15.2. 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 the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
2-(2-Butoxyethoxy)ethanol - 112-34-5	1.0

SARA 311/312 Hazard Categories

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

CWA (Clean Water 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)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Isobutanol 78-83-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

15.3. 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
2-(2-Butoxyethoxy)ethanol 112-34-5	X	-	X
Isobutanol 78-83-1	X	X	X
n-Butanol 71-36-3	X	X	X

16. Other information, including date of preparation of the last revision

<u>NFPA</u>	Health Hazards 2	flammability 0	Instability 0	Physical and chemical properties -
<u>HMIS</u>	Health Hazards 2	flammability 0	Physical Hazards 0	Personal Protection X

Revision date 16-May-2018

Revision note V1

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The 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 text.

End of Safety Data Sheet