SAFETY DATA SHEET
According to WHS Regulations (2020)

VDASF3 Fluorine Free Foam
Fire Fighting Foam Glass A, B, / 0.5 – 1%

SECTION 1: IDENTIFICATION

1.1. Product identifier:

Trade name: VDASF3

Substance/Mixture: Mixture.

Other means of identification: Non-applicable.

1.2. Recommended use of the chemical and restrictions on use:

Relevant uses: FFF Fluorine-Free Foam Firefighting concentrate. For professionals use only. Dosage of use: 0,5-4% for use on Class A and B fires (hydrocarbon fires) using low and medium expansion devices. At concentration recommended the product **IS NOT LISTED AS HAZARDOUS.**
Uses advised against: All uses not specified in this section or in Section 7.3.

1.3. Details of supplier:

Supplier:
Qtec Fire Services
5 Buttonwood Place Willawong, Brisbane,
AUSTRALIA, 4110
Tel: +61 7 3711 7544/ Fax: +61 7 3711 7433
info@qtecfire.com.au

AUSTRALIA
Call the Poisons Information Centre
With the MSDS of the product.
PHONE: 13 11 26

1.4. Emergency telephone number:

Call the Poisons Information Center with the MSDS of the product

PHONE: 13 11 26

+61 7 3711 7544 (Australia Local supplier)

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the hazardous chemical:

WHS:
Classification of this product has been carried out in accordance with Model Work Health and Safety Regulations (Hazardous Chemicals) Amendment 2020
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Sens. 1B: Sensitisation, skin, Category 1B, H317

Foam concentrates 100%

Class	Category	Hazard statements	Hazard Pictograms	Classification method
Eye Dam	Category 1	H318 – Causes serious eye damage	 GHS05	Calculation method
Skin sensitization	Category 1	H317 – May cause an allergic skin reaction	 GHS07	Calculation method

Dilution 0,5-4%

This dilution is classified as not hazardous according to regulation (EC) 1272/2008 (CLP).

2.2. Label elements, including precautionary statements.

WHS:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage.
Skin Sens. 1B: H317 - May cause an allergic skin reaction

Precautionary statements:
P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 – Contaminated work clothing should not be allowed out of the workplace.
P280 – Wear protective gloves/protective clothing/respiratory protection/eye protection/protective footwear.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor/physician.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

2.3. Others hazards which do not result in classification:

Non-Applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable.

3.2 Mixtures:

Chemical description: Aqueous mixture of hydrocarbon surfactants, solvents and additives.

Components:

In accordance with Schedule 8 (WHS Regulations), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 112-34-5	**(2-(2-butoxyethoxy)ethanol)** Eye irrit. 2A: H319 - Warning	10-30%
CAS: 90583-18-9	**Sulfuric acid, mono-C12-14 (pairs)-alkyl esters,compds. with triethanolamine** Acute Tox. 4: H302; Eye Dam. 1: H318; Skin irritat. 2: H315 - Danger	<10%
CAS: 4292-10-8	**(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino] propylammonium hydroxide** Eye Dam. 1: H318 - Danger	<10%
CAS: 68139-30-0	**1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-,N-(coco acyl) derivs., hydroxides, inner salts** Eye irrit. 2A: H319 - Warning	<10%

CAS: 64265-45-8	**N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-ß-alanine** Eye irrit. 2A: H319; Skin Sens. 1B: H317 - Warning	<10%
CAS: 142-31-4	**Sodium octyl sulfate** Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	<10%

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information:

Identification	Specific concentration limit
Sulfuric acid, mono-C12-14 (pairs)-alkyl esters,compds. with triethanolamine CAS: 90583-18-9	% (w/w)>=20: Eye Dam. 1 – H318 10<=% (w/w)<20: Eye Irrit. 2 – H319
(carboxymethyl)dimethyl-3-[(1-oxododecyl)amino] propylammonium hydroxide CAS: 4292-10-8	% (w/w)>=10: Eye Dam. 1 – H318 4<=% (w/w)<10: Eye Irrit. 2 – H319
Sodium octyl sulphate CAS: 142-31-4	% (w/w) >=20: Eye Dam. 1 – H318 10<=% (w/w)<20:Eye Irrit. 2 – H319

Additional information:
VDASF3 does not contain any persistent organic chemicals such as fluorinated organic substances (PFAS) and as siloxane (D4, D5 and D6).
For the wording of the listed risk phrases refer to section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of necessary first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

May cause an allergic skin reaction. In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,…), seek medical advice with this Safety data Sheet.

After eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Symptoms caused by exposure:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Medical attention and special treatment:

Non-applicable.

SECTION 5: FIREFIGHTING MEASURES

5.1. Suitable extinguishing equipment:

Suitable extinguishing media:

Fire extinguishers with physical foam, ABC powder or CO2.

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full water as an extinguishing agent.

5.2. Special hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3. Special protective equipment and precautions for fire fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, …).

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

See Section 8.

6.2. Environmental precautions.

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3. Methods and material for containment and cleaning up.

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4. Reference to other sections.

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling.

A.- General precautions for safe use

Comply with current legislation concerning the prevention of industrial risk with regards manually handling weights.

Maintain order, cleanliness and destroy using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions.

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene.

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risk.

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3).

7.2. Conditions for safe storage, including any incompatibilities.

A.- Technical measures for storage in original container.

Minimum Temp.: 0ºC

Maximum Temp.: 50ºC

Maximum time: 60 Months

B.- General conditions for storage.

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Other information:

Technical storage measures applicable to supply containers.

7.3. Specific end use(s).

FFF Fluorine Free Foam Firefighting concentrate.

Exclusive professional use.

Dosage of use: 0,5-4% for use on Class A and B fires (hydrocarbon fires) using low and medium expansion devices.

Observe handling instructions for preparing ready-to-use mixtures and for using the solutions.

Observe technical data sheet.

Recommended temperatures for use between -15° C and 50° C.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1. Exposure control measures:

Substances whose occupational exposure limits have to be monitored in the workplace:

There are no applicable occupational exposure limits for the substances contained in the product

8.2. Engineering controls:

A.- Individual protection measures, for example personal protective equipment (PPE)

As a preventive measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at this disposal.

B.- Respiratory protection

Pictogram	PPE	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Linear low-density polyethylene (LLDPE), Breakthrough time: >480min, Thickness: 0.062mm)	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Bodily protection

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration.
	Anti-slip work shoes	Replace before any evidence of deterioration

F.- Additional emergency measures

Emergency measure	Standards
Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011
Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties.

For complete information see the product datasheet.

Appearance:

Physical state at 20ºC: Liquid (Normal conditions of temperature and pressure – NTP – 20ºC/1atm).
Color: Amber.
Odor: Characteristic.
Odour threshold: Non-applicale*.

Volatility:

Boiling point at atmospheric pressure: 125ºC.
Vapour pressure at 20ºC: 2215Pa.
Vapour pressure at 50ºC: 11670.95Pa (11.67kPa).
Evaporation rate at 20ºC: Non-applicale*.

Product description:

Density at 20ºC: 1080-1102 kg/m^3.
Relative density at 20ºC: 1.082-1.102.
Dynamic viscosity at 20ºC: ≤50cP.
Kinematic viscosity at 20ºC: ≤50mm^2/s.
Kinematic viscosity at 40ºC: ≤50mm^2/s.
Concentration: Non-applicable*.
pH-value: 7-9 (20ºC).
Vapour density at 20ºC: Non-applicable*.
Partition coefficient n-octanol/water 20ºC: Non-applicable*.
Solubility in water at 20ºC: Non-applicable*.
Solubility properties: Water-soluble.
Decomposition temperature: Non-applicable*.
Melting point/Freezing point: ≤-17ºC (pressure 1atm).

Flammability:

Flash Point: >100ºC (Does not maintain combustion).
Flammability (solid, gas): Non-applicable*.
Autoignition temperature: 204ºC.
Lower flammability limit: Non-applicable*.
Upper flammability limit: Non-applicable*.

Particle characteristics:
Median equivalent diameter: Non-applicable

9.2. Other information: No further relevant information availed.

*Not relevant due to the nature of the product, not providing information property of this hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2. Chemical stability:

Chemical stable under the indicated conditions of storage, handling, and use.

10.3. Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4. Conditions to avoid:

Applicable for handling and storage at room temperature.

Temperatures: <-15ºC, >+50ºC.

10.5. Incompatible materials:

Not use containers, pipes or accessories of galvanized steel. Avoid strong acids. Avoid alkalis or strong bases.

10.6. Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available.

Specific toxicology information on the substances:

Components	ORAL - OECD 401 LD50	DERMAL - OECD 402 LD50	INHALATION IRT
(2-(2-butoxyethoxy)ethanol)	2410 mg/kg bw (rat)	2764 mg/kg bw (rabbit)	>29ppm/2hours
Sulfuric acid, mono-C12-14 (even numbered)-alkyl esters, compds. with triethanolamine	>5000 mg/kg (rat)	not available	not available

Hydroxide (carboxymethyl) dimethyl-3 - [(1-oxododecil) amino] propylammonium	>5000 mg/kg (rat)	>5000 mg/kg (rat)	not available
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-,N-(coco acyl) derivs., hydroxides, inner salts	2950 mg/kg (rat)	>2000 mg/kg (rat)	not available
N-(2-hidroxietil)-N-[2-[(1-oxooctil)amino]etil]-ß-alanina	>2000 mg/kg (rat)	>2000 mg/kg (rat)	not available
Sodium octyl sulfate	>2.000 mg/Kg (rat) rattus norvegicus	> 2.000 mg/Kg (rabbit)	not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure.

a) Acute toxicity: Based on available data, the classification criteria are not met (Calculation method). However, it contains substances classified as dangerous for consumption (ingestion and inhalation). For more information see section 3.

b) Skin corrosion/irritation: Based on available data, the classification criteria are not met. (Calculation method). However, it contains substances classified as hazardous for skin contact. For more information see section 3.

c) Serious eye damage/irritation: Data no available for the product itself. Based on available data, classified as "H318 - Causes serious eye damage". (Calculation method).

d) Respiratory or skin sensitization:

Respiratory sensitization: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.

Skin sensitization: Data no available for the product itself. Based on available data, classified as “H317 - May produce an allergic reaction”. (Calculation method). Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

e) Germ cell mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

f) Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

g) Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

h) STOT-single exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

i) STOT-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

j) Aspiration hazard: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

11.2. Information on other hazards: Mixture does not contain substances identified as endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

AQUATIC TOXICITY			
Test	**VDASF3 concentrate EC_{50}**	**VDASF3 0,5% solution EC_{50}**	**Test information**
Acute fish toxicity	24,2mg/l, 96h	4840mg/l, 96h	Zebrafish eggs (Danio rerio) Test according to OECD 236
Acute daphnia toxicity	>100mg/l, 48h	>20000mg/l, 48h	Daphnia magna Test according to OECD 202
Acute algae toxicity	63,2mg/l, 72h (E_rC_{50})	12640mg/l, 72h (E_rC_{50})	Desmodesmus subspicatus Test according to OECD 201
WASTEWATER ANALYSIS			
Test	**VDASF3 concentrate**	**VDASF3 0,5% solution**	**Test information**
Chemical oxygen demand (COD)	800 000mg O_2/l	4000mg O_2/l	DIN 38409 (H41)
Biochemical oxygen demand at 5 days (BOD_5)	480 000mg O_2/l	2400mg O_2/l	DIN EN 1899 (H51)
Biochemical oxygen demand at 28 days (BOD_{28})	580 000mg O_2/l	2900mg O_2/l	DIN EN ISO 9408 (L22)
Test	**VDASF3 concentrate EC_{10}**	**VDASF3 0,5% solution EC_{10}**	**Test information**
Acute fish toxicity	16,4mg/l, 96h	3280mg/l, 96h	Zebrafish eggs (Danio rerio) Test according to OECD 236
Acute daphnia toxicity	78,8mg/l, 48h	15760mg/l, 48h	Daphnia magna Test according to OECD 202
Acute algae toxicity	1,5mg/l, 72h (E_rC_{10})	300mg/l, 72h (E_rC_{10})	Desmodesmus subspicatus Test according to OECD 201

LABORATORY: SYNLAB – GERMANY (Test report no.: ULE-18-0128322/01-1 – Date: 11.12.2018)

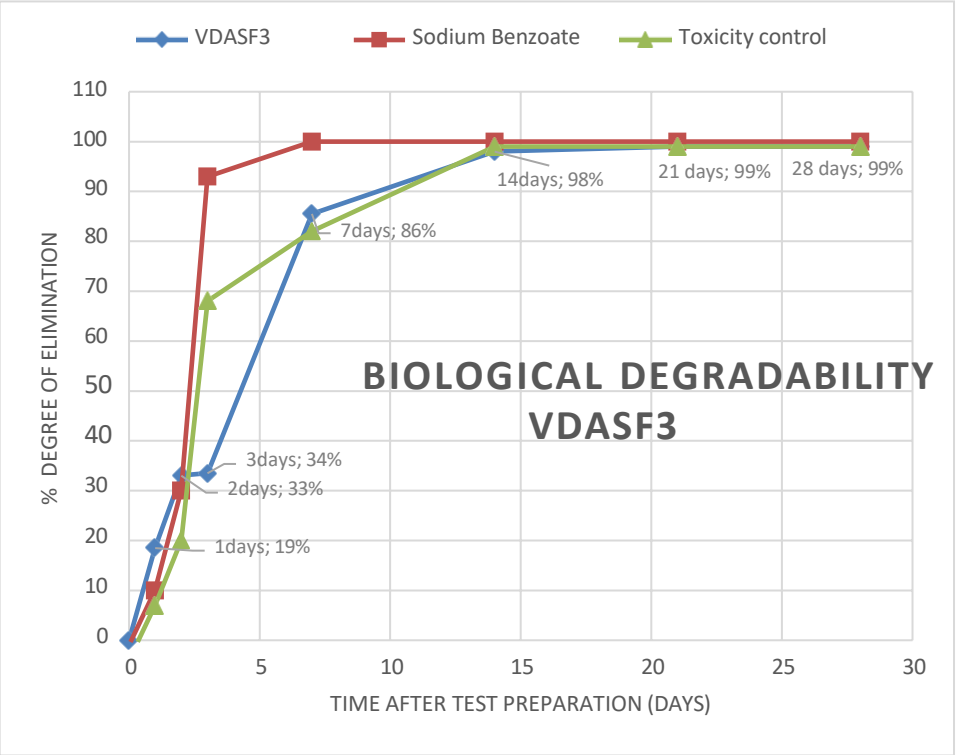
12.2. Persistence and degradability.

VDASF3 does not contain persistent organic substances, 99% biodegradable in 21 days.

VDASF3 is "Readily biodegradable".

Biodegradability test according to EN ISO 9888 (L25) (Zahn-Wellens-Test)

Result: After 21 days, a degree of elimination of 99% was determinate using this approach.



LABORATORY: SYNLAB – GERMANY (Test report no.: ULE-18-0128322/01-1 – Date: 11.12.2018)

12.3. Bio accumulative potential.

Data no available for the product itself.
No chronic toxicity effects are expected to results in long-term biopersistence, bioaccumulation, bioconcentration, biomagnification.

12.4. Mobility in soil.

Avoid the contamination of the soil and water: If surfactants mixture penetrate soil, it will be mobile and may contaminate groundwater and surface water.

12.5. Results of PBT and vPvB assessment.

Components of the mixture are not expected to be persistent, bioaccumulating nor toxic (PBT). Components of the mixture are not expected to be very persistent not very bioaccumulating (vPvB).

The organic components of this product are non-persistent biodegradable materials and it does not contain any fluorinated organic compounds or other persistent organic pollutants.

VDASF3 is a fluorine-free firef ighting foam concentrate. TOP Assay results (TOP – Total Oxidizable Precursor):

TOP-A: Perfluoroalkyl Sulfonic Acids

Perfluorobutane sulfonic acid (PFBS) < 0,02*****mg/Kg.
Perfluoropentane sulfonic acid (PFPeS) < 0,02*****mg/Kg.
Perfluorohexane sulfonic acid (PFHxS) < 0,02*****mg/Kg.
Perfluoroheptane sulfonic acid (PFHpS) < 0,02*****mg/Kg.
Perfluorooctane sulfonic acid (PFOS) < 0,02*mg/Kg.
Perfluorodecane sulfonic acid (PFDS) < 0,02*****mg/Kg.

TOP-B: Perfluoroalkyl Carboxylic Acids

Perfluorobutanoic acid (PFBA) < 0,1******mg/Kg.
Perfluoropentanoic acid (PFPeA) < 0,02*mg/Kg.
Perfluorohexanoic acid (PFHxA) < 0,02*mg/Kg.
Perfluoroheptanoic acid (PFHpA) < 0,02*mg/Kg.
Perfluorooctanoic acid (PFOA) < 0,02*mg/Kg.
Perfluorononanoic acid (PFNA) < 0,02*mg/Kg.
Perfluorodecanoic acid (PFDA) < 0,02*mg/Kg.
Perfluoroundecanoic acid (PFUnDA) < 0,02*mg/Kg.
Perfluorododecanoic acid (PFDoDA) < 0,02*mg/Kg.
Perfluorotridecanoic acid (PFTrDA) < 0,02*mg/Kg.
Perfluorotetradecanoic acid (PFTeDA) < 0,05***mg/Kg.
Perfluorooctane sulfonamide (FOSA) < 0,02*mg/Kg.

TOP-C: Perfluoroalkyl Sulfonamides

N-Methyl perfluorooctane sulfonamide (MeFOSA) < 0,02*****mg/Kg.
N-Ethyl perfluorooctane sulfonamide (EtFOSA) < 0,05****mg/Kg.
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) < 0,05****mg/Kg.
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) < 0,05****mg/Kg.
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) < 0,02*****mg/Kg.
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) < 0,02*****mg/Kg.

TOP-D: Fluorotelomer Sulfonic Acids

4:2 Fluorotelomer sulfonic acid (4:2 FTS) < 0,05***mg/Kg.
6:2 Fluorotelomer sulfonic acid (6:2 FTS) < 0,05***mg/Kg.
8:2 Fluorotelomer sulfonic acid (8:2 FTS) < 0,05***mg/Kg.
10:2 Fluorotelomer sulfonic acid (10:2 FTS) < 0,05***mg/Kg.

TOP-P: PFAS Sums

Sum of PFHxS and PFOS < 0,02*mg/Kg.

Sum of TOP C7-C14 as fluorine < 0,02*mg/Kg.

*LOR (Limit of reporting) = 0,02mg/Kg.
**LOR (Limit of reporting) = 0,1mg/Kg.
***LOR (Limit of reporting) = 0,05mg/Kg.

(Laboratory: ALS ENVIROMENTAL (Environmental Division Sydney) Date: 25-Sep-2017)

12.6. Endocrine disrupting properties.

Data no available for the product itself.

The substances contained in this mixture are not identified as endocrine disrupters. No adverse effects on the environment caused by endocrine disrupting properties shall be provided.

12.7. Others adverse effects.

Where possible prevent the release of foam and firewater to waterways.

The very rapid biodegradation and high Biochemical oxygen demand have the potential to deplete dissolved oxygen levels in waterways leading to acute oxygen stress and possible impacts on aquatic life, especially in enclosed waterways.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Disposal methods.

Recommendations:

Consult the authorized waste service manager on the assessment and disposal operations.

If a spill occurs: Contain spill. Cover with absorbent material. Collect spilled material and place in a closed and identified container.

In the case of a great spill, it can create copious quantities of foam: inform to the competent authorities according the local legislation.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system unless authorised by agreement with the wastewater treatment plant operator. Must be recycled or disposed of according to the applicable regulations. Waste has to be classified according to the European Waste catalogue based on the identification of the waste generating source.

Wastewaters may also be able to be treated on site to biodegrade (if local authority waste regulations allow) by holding in ponds and/or irrigation to ground according to quantity and contaminants other than foam.

In case the container has been in direct contact with the product, it will be processed the same way as the actual product.

EWC waste code: 160305 organic wastes containing dangerous substances.

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agent: Water; if necessary, with cleansing agents.

SECTION 14: TRANSPORT INFORMATION

This mixture is not regulated for transport:

- **ADG Code (Road and Railway):** Non-dangerous.
- **IMDG 39-18 (Maritime):** Non-dangerous.
- **IATA/ICAO 2021 (Airplane):** Non-dangerous.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Regulation (EC) No 1272/2008 (CLP).

Regulation (EC) No 1000/2017 (PFOA).

Regulation (EC) 2019/1021 (Persistent organic pollutants - Perfluorooctane sulfonic acid and its derivatives (PFOS) C8F17SO2X (X = OH, Metal salt (O-M+), halide, amide, and other derivatives including polymers.

Commission Delegated Regulation (EU) 2020/784 of 8 April 2020 amending Annex I to Regulation (EU) 2019/1021 of the European Parliament and of the Council as regards the listing of perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds.
VS Focum firefighting foams are in compliance with the European Regulation 2019/1021/EC of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutant modified by Commission Delegated Regulation (EU) 2020/784 of 8 April 2020.

VS Focum firefighting foams are in compliance European Regulation 1000/2017/EC of 13 June 2017 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) as regards perfluorooctanoic acid (PFOA), its salts and PFOA-related substancesMust comply with local legislation on occupational risk prevention and environment.

Must comply with local legislation on occupational risk prevention and environment.

Industrial Chemicals Act 2019: Industrial Chemicals (Notification and Assessment) Act 1989

AICS (Australian Inventory of Chemical Substances)

Australian HVICL (High Volume Industrial Chemicals List)

National Occupational Health and Safety

Commision (NOHSC) Approved Criteria for Classifying Hazardous Substances

NICNAS Priority Existing Chemical (PEC)

NPI (National Pollutant Inventory)

VDASF3 is a fluorine-free and Siloxane-free firefighting foam concentrate

VDASF3 does not contain any fluorinated organic substances and complies with the Queensland Firefighting Foam Policy fluorine-free foam limits.

VDASF3 foam characteristics are compliant with the Queensland Policy for non-persistent foams.

15.2. Chemical safety assessment.

A Chemical Safety Assessment has not been carried out.

SECTION 16: OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Legislation related to safety data sheets:

This Safety Data Sheet has been designed in accordance with WHS regulations and Code of Practice for the Preparation of Safety Data Sheet for Hazardous Chemicals.

Texts of the legislative phrases mentioned in section 2:

H317 – May cause an allergic skin reaction. Skin Sensib. 1: Calculation

method. H318 – Causes serious eye damage. Eye Dam. 1: Calculation

method.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

Revisions.

Current Version: 1.0 (WHS Regulations – 2020). Replaces version dated: Initial edition
Revision date: 25/04/2022
Changes from the version of CLP Regulation: This Safety Data Sheet has been adapted to the requirements of WHS Regulations (2020).

Clause Number	Previous MSDS	Current MSDS	Reason for updater to section
Section 3	CAS 1469983-50-3	CAS 68139-30-0	Raw material with: REACH registration under CAS 1469983-50-3 AICIS registration under CAS 68139-30-0

WHS:
Acute Tox. 4: H302 – Harmful if swallowed.

Eye Dam. 1: H318 – Causes serious eye damage. Eye Irrit. 2A: H319 – Causes serious eye irritation. Skin Irrit. 2: H315 – Causes skin irritation.

Skin Sens. 1B: H317 – May cause an allergic skin reaction.

Abbreviations and acronyms
ADG: Australian Code for the Transport of Dangerous Goods by Road and Rail. IMDG: International Maritime Dangerous Goods Code.
IATA: International Air Transport Association. ICAO: International Civil Aviation Organitation. LD50: Lethal Dose 50
EC50: Effective Concentration 50

Principal bibliographical sources
http://www.safeworkaustralia.gov.au/

Advice related to training
Minimal training is recommended to prevent industrial risk for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.