

Safety Data Sheet

Safety Data Sheet according to Annex II of COMMISSION REGULATION (EU) No 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of chemicals (REACH)

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Version:I

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : **Firexo fx51 (Sprayed Water with additive)**
Synonyms : **Extinguishing agent**
Product group : **Extinguishing agent**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Fire extinguishing agent

Use advised against: other than recommended.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

Firexo Limited
 2a Connaught Avenue
 London,
 E4 7AA, UK
 Tel: +44 (0) 207 989 6101

Supplier EU Region:

Firexo sp. z o.o.
 ul. Bierutowska 55
 51-317 Wrocław, Polska
 Customerqueries@firexo.com
 Tel: +48 71 707 91 00

E-mail address of the person responsible for the safety data sheet: support@firexo.com

1.4. Emergency telephone number

During office working hours (Mon-Fri 09.00 - 17.00) - Tel: +44 (0) 207 989 6101

EU: 24 hours a day - 112 –emergency

UK: 24 hours a day - 999 –emergency

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

Classification(REGULATION (EC) No 1272/2008

Physical hazards: Does not meet the classification criteria.

Health risk: Does not meet the criteria for classification.

Environmental hazards: Does not meet the classification criteria.

2.2 Label elements

Hazard pictograms	:not required
Signal word	:not required
Hazard statements	:The mixture is not classified as hazardous according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP).
Precautionary statements	: not required

2.3 Other hazard

The mixture does not contain any 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ present on the list published by the European Chemicals Agency (ECHA) according to Article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table> the mixture does not meet the criteria for PBT or vPvB mixtures according to Annex XIII of REACH Regulation (EC) No 1907/2006.

The mixture does not contain substances $>0.1\%$ having endocrine disrupting properties in accordance with the criteria of Commission Delegated Regulation (EU) No 2017/ 2100 or Commission Regulation (EU) 2018/ 605

SECTION 3. Composition/information on ingredient

3.1 Substances

Not applicable

3.2 Mixtures

Identification	Chemical name/classification	Concen. range
CAS:57-55-6 EC 200-338-0 Index number: not applicable Registration numbers: 01-2119456809-23-XXXX	MONOPROPYLENEGLYCOL substance with an occupational exposure limit	< 8.50
	Regulation 1272/2008 Not classifiable *fulfilling one of the CLP Regulation Annex VI Note Q conditions	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4. First aid measures

4.1 Description of first aid measures

Inhalation:	: Move victim to fresh air. Obtain medical attention immediately for any breathing difficulty.
Eye Contact:	: Immediately flush eyes with plenty of water for 15 minutes whilst holding lids open. Remove contact lenses. If redness, itching or burning occurs get medical attention.
Skin Contact:	: Remove contaminated clothing. Wash material off skin with copious amounts of water and soap for at least 15 minutes. If redness, itching or burning occurs get medical attention.
Ingestion:	: Rinse mouth with water. Dilute by drinking large quantities of water and obtain medical attention.
Advice to Physicians:	: Treat symptomatically.

4.2. Most important symptoms and effects, both acute and delayed

The mechanical effect of coarse fibres in contact with throat, skin or eyes may cause temporary itching/ inconvenience.

Symptoms due to excessive exposure

Inhalation:	: No specific data available
Eye Contact:	: Tearing, redness, irritation, may cause mechanical irritation to the eyes.
Skin Contact:	: Frequent or prolonged contact may cause dryness, redness of the skin, may cause mechanical irritation of the skin
Ingestion:	: Abdominal pain, nausea, vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Remove the affected person from the contaminated environment. In case of health problems, contact a doctor or poison control centre. Provide the information contained in the safety data sheet. Do not give anything by mouth to an unconscious person.

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	: 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.
Unsuitable extinguishing media :	: For this substance/mixture no limitations of extinguishing agents are given

5.2 Special hazards arising from the substance or mixture

The chemical properties of the extinguishing agent make it a suitable extinguishing media for all fires classes. Overheating of the metal cylinder of the extinguisher can cause a sudden increase of the propellant gas pressure and the evaporation of the extinguishing agent. The extinguishing agent vapors are heavier than air and are potentially dangerous if large volumes are enclosed in closed or lower areas.

5.3 Advice for firefighters

Special protective equipment for firefighters

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

Further information

No information available

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

In case of loss or use of extinguishing agent, don't accede to the area as long as proper ventilation was applied.

6.2 Environmental precautions

If large quantities of the product are released, do not allow it to spread in the environment.

6.3 Methods and materials for containment and cleaning up

Collect mechanically and place in labelled containers. Treat collected material as waste.

6.4 Reference to other sections

For personal protective equipment and how to handle the product, see sections 7 and 8.

Indications about waste treatment see section 13.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Comply with the general principles of health and safety at work with chemical products and good industrial practice. Avoid direct eye contact with the product, Use appropriate personal protective equipment (see section 8). Do not eat, drink or smoke while handling the product. Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Protect the cylinder from damage. Handle in well-ventilated areas.

Store in cool, dry, well ventilated areas out of direct sunlight and away from heat and ignition sources. 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. Store pressurized extinguishers away from high heat sources.

7.3 Specific end use(s)

Recommendations : No data available.

Industry-specific solutions : No data available.

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

MONOPROPYLENEGLYCOL CAS: 57-55-6						
Country	Limit value - TWA			Limit value - STEL		
	ppm	mg/m ³	F/cm ³	ppm	mg/m ³	F/cm ³
Australia		10				
Canada - Ontario		10(1)				
Ireland		10				
Latvia		7				
New Zealand		10 (2)				
Poland		100 (2)				
South Africa Mining		10				
United Kingdom		10				

Remarks:

(1) For assessing the visibility in a work environment where 1,2-propylene glycol aerosol is present.

(2) Inhalable fraction

Name of substance	Endpoint	Used in	Protection goal, route of exposure	Exposure time		Threshold level
MONO- PROPYLENEGLYCOL CAS: 57-55-6 EC 200-338-0	DNEL	worker (industry)	human, dermal	chronic	systemic effects	No hazard identified
	DNEL	worker (industry)	human, inhalatory	chronic	systemic effects	168 mg/m ³
	DNEL	worker (industry)	human, inhalatory	chronic	local effects	10 mg/m ³
	DNEL	For consumers	human, dermal	chronic	systemic effects	No hazard identified
	DNEL	For consumers	human, inhalatory	chronic	systemic effects	50 mg/m ³

	DNEL	For consumers	human, inhalatory	chronic	local effects	10 mg/m ³
	DNEL	For consumers	human, consumption	chronic	systemic effects	No hazard identified

Name of substance	Environmental compartment	PNEC
MONOPROPYLENEGLYCOL CAS:57-55-6 EC 200-338-0	freshwater	260 mg/L
	intermittent releases (freshwater)	183 mg/L
	marine water	26 mg/L
	intermittent releases (marine water)	-
	freshwater sediment	572 mg/kg
	marine sediment	57.2 mg/kg
	sewage treatment plant (STP)	20 g/L
	soil	50 mg/kg soil
	air	No risk identified

8.2. Exposure controls

Eyes/face protection: if possible due to emergency conditions, while using the fire extinguisher, protect your eyes with safety glasses.

Skin protection: if possible due to emergency conditions, while using the fire extinguisher, protect your hands with gloves.

Body protection: if possible due to emergency conditions, while using the fire extinguisher, protect your body with appropriate clothing.

Respiratory protection: if possible due to emergency conditions, while using the fire extinguisher, wear a mask with breathing apparatus.

Thermal danger: exposure to intense heat sources for extended periods, can cause a sudden increase in pressure of the extinguisher interior components.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: liquid
Colour	: colourless
Odour	: Not applicable
Melting point/freezing point	: Not applicable
Boiling point or initial boiling point and boiling range	: 101°C to 145°C
Flammability	: Not applicable
Lower and upper explosion limit	: Not applicable
Flash point	: >93°C
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not applicable
pH	: approx. 7
Kinematic viscosity	: 3.8 mm ² /s
Solubility	: Not applicable
Partition coefficient n-octanol/water (log value)	: Not applicable
Vapour pressure	: Not applicable
Density and/or relative density	: approx. 1.166 g/cm ³
Relative vapour density	: Not applicable

Particle characteristics : liquid

9.2 Other information

No additional information or studies available.

SECTION 10. Stability and reactivity

10.1 Reactivity

No test performed because the persistence of the substance is not critical.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

Avoid high flame ignition sources, temperatures and direct sunlight.

10.4 Conditions to avoid

Avoid high flame ignition sources, temperatures and direct sunlight.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

No information available.

SECTION 11. Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Identification	Acute toxicity		Type
MONOPROPYLENEGLYCOL CAS:57-55-6 EC 200-338-0	LD50 (oral)	22 000 mg/kg	rat
	LD50 (dermal)	> 2 000 mg/kg bw	rabbit
	LC50 (inhalation)	> 317 042 mg/m ³ air	rat

For the mixture

Acute toxicity (oral)	: Shall not be classified as acutely toxic
Acute toxicity (inhalation)	: Shall not be classified as acutely toxic
Acute toxicity (dermal)	: Shall not be classified as acutely toxic
Skin corrosion/irritation	: Shall not be classified as skin corrosion/irritation
Serious eye damage/eye irritation	: Shall not be classified as eye damage
Respiratory or skin sensitisation	: Shall not be classified as a respiratory or skin sensitiser
Germ cell mutagenicity	: Shall not be classified as germ cell mutagenic
Carcinogenicity	: Shall not be classified as carcinogenic
Reproductive toxicity	: Shall not be classified as a reproductive toxicant
Specific target organ toxicity - single exposure	: Shall not be classified as a specific target organ toxicant (single exposure)
Specific target organ toxicity - repeated exposure	: Shall not be classified as a specific target organ toxicant (repeated exposure)
Aspiration hazard	: Shall not be classified as presenting an aspiration hazard

11.2 Information on other hazards

It does not pose a health risk by disrupting the endocrine system.

SECTION 12. Ecological information

12.1 Toxicity

Identification	Acute toxicity		Species/Method	Type
MONOPROPYLENEGLYCOL CAS:57-55-6 EC 200-338-0	LC50	40 613 mg/L	Oncorhynchus mykiss	fish
	EC50	18 340 mg/L	Ceriodaphnia dubia	shellfish
	EC50	19 000 mg/L	Pseudokirchneriella subcapitata	freshwater algae

12.2 Persistence and degradability

Identification	Biodegradability
MONOPROPYLENEGLYCOL CAS:57-55-6 EC 200-338-0	Under aerobic conditions 81.7 -106.8% biodegradation was found for 100 mg/l monopropylene glycol tested according to OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) (West et al. 2007) and in another OECD 301 F study 81 -97% biodegradation was found for 84 mg/l monopropylene glycol tested under aerobic conditions (The Dow Chemical Company, 1999). In further assessment monopropylene glycol is considered ready biodegradable

12.3 Bioaccumulative potential

Identification	Bioaccumulation
MONOPROPYLENEGLYCOL CAS:57-55-6 EC 200-338-0	In accordance with column 2 of REACH Annex IX, the bioaccumulation study does not need to be conducted as the substance can be expected to have a low potential for bioaccumulation (log Kow =-1.07). This is supported by a calculated BCF value of 0.09 (Lyman, 1982)

12.4 Mobility in soil

The product released to the environment is expected to become inseparably bound to soil or sediment due to its similarity to the inorganic matter of the soil/sediment and will be subjected to natural processes in the environment (cation exchange, sedimentation).

12.5 Results of PBT and vPvB assessment

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XII.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

The waste management measures shall be assessed case by case, depending on the quantity of extinguishing agent may be present in the cylinder and the residual pressure of the propellant gas, in the light of the provisions of European and/or national legislation in force. For manipulation and measures in case of accidental extinguishing agent dispersion, generally apply the guidance provided in paragraphs 6 and 7.

Resorting to waste disposal after evaluating the possibilities for re-use or re-filling or recovery at authorized companies under current regulations.

It is not allowed for disposal by unauthorized parties from the local requirements.

SECTION 14. Transport information

14.1 UN number or ID number: not applicable

14.2 UN proper shipping name: not applicable

14.3 Transport hazard class(es): not applicable

14.4 Packing group: not applicable

14.5 Environmental hazards : not applicable

14.6 Special precautions for user : No

14.7 Maritime transport in bulk according to IMO instruments: No available data

SECTION 15. Regulatory information

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

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

COMMISSION DIRECTIVE (EU) 2017/164 of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU

DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

DIRECTIVE 2004/42/CE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC

DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance)

15.2. Chemical safety assessment

For this mixture a chemical safety assessment was not carried out.

SECTION 16. Other information

Full text of H-Statements referred to under sections 2 and 3.

Abbr.	Descriptions of used abbreviations
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
SVHC	Substance of Very High Concern
vPvB	Very Persistent and very Bioaccumulative

Recommendations for the training of workers

Persons involved in the trade in hazardous mixtures should be trained in the handling of hazardous chemical substances and mixtures.

Data sources:

The safety data sheet has been prepared on the basis of the data contained in the safety data sheets of the raw materials used and the literature data.

The classification was made on the basis of the actual content of hazardous components using a calculation method.

The information provided in this safety data sheet is based on current knowledge.

Changes to version I: Change in the name of the responsible entity

Since the conditions of use and storage of the product are beyond the Firexo Limited, the Company disclaims any liability for any loss or damage arising in the event that the product is used in a manner inconsistent with its intended use or if it is improperly stored.

The information contained in this safety data sheet shall not constitute any form of contract or commercial obligation. This information has been compiled to the best of our knowledge and describes the product from the point of view of environmental protection and safety. They do not constitute a guarantee of product properties or quality specification and cannot be the basis for a complaint. The information in this safety data sheet is to be regarded as an aid to the safe use or transport of the product. The manufacturer reserves the right to modify the data without notice. Any changes to this safety data sheet will result in the safety data sheet being updated and supplied to the supplier.

The safety data sheet has been prepared in accordance with the current regulations on chemical substances and mixtures by CHEMTRA Consulting; www.chemtra.pl ; kontakt@chemtra.pl

-----End of the Safety Data Sheet-----