



SAFETY DATA SHEET

In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended

Liquid extinguisher containing Rühl AFFF

Compact extinguishing agent

Date: 08.11.2019

Revision: 18.10.2021

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

1.1. Product identifier

Liquid extinguisher containing Rühl AFFF Compact extinguishing agent

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

Relevant identified uses: Fire extinguishing agent.

Uses advised against: Not determined.

1.3. Details of the supplier of the safety data sheet

Supplier: Ogniochron S.A.

Address: Poland PL; 34-120 Andrychów; Przemysłowa 42 Street

Telephone/Fax: (+48) 33 875 10 70 / (+48) 33 875 10 77

E-mail address of the person responsible for the SDS: biuro@ogniochron.eu

1.4. Emergency telephone number

112 (emergency call)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to 1272/2008/EC:

Hazards to man: Does not meet the criteria of classification.

Hazards to environment: Does not meet the criteria of classification as dangerous for the environment.

Hazard from physical and chemical properties: Does not meet the criteria of classification.

2.2. Label elements

Label accordance with Regulation 1272/2008/EC (CLP)

Hazard pictogram, signal words: None.

Hazard statements: None.

Precautionary statements: None.

The names of hazardous ingredients on the label: None.

2.3. Other hazards

Product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation 1907/2006 (REACH).

The product does not contain ingredients entered in the list established in accordance with Art. 59 paragraph 1 as having endocrine disrupting properties or components with endocrine disrupting properties in accordance with the criteria set out in Regulation 2017/2100/EU or Regulation 2018/605/EU in a concentration equal to or greater than 0.1 %.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.



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3.2. Mixtures

Substance name:	2-(2-butoxyethoxy)ethanol
Concentration [%]:	<0.12
CAS Number:	112-34-5
EC Number:	203-961-6
Index Number:	603-096-00-8
Classification 1272/2008/EC:	Eye Irrit. 2; H319
The registration number:	Not applicable. The substance does not exceed 1 ton of imports per year (Article 6 (1) of Regulation 1907/2006 (REACH))

Substance name:	Ethanol
Concentration [%]:	<0.12
CAS Number:	64-17-5
EC Number:	200-578-6
Index Number:	603-002-00-5
Classification 1272/2008/EC:	Flam. Liq 2; H225 Eye Irrit. 2; H319*
The registration number:	Not applicable. The substance does not exceed 1 ton of imports per year (Article 6 (1) of Regulation 1907/2006 (REACH))

Substance name:	Hydrogen peroxide solution
Concentration [%]:	<0.003
CAS Number:	7722-84-1
EC Number:	231-765-0
Index Number:	008-003-00-9
Classification 1272/2008/EC:	Ox. Liq 1; H271 Acute Tox. 4; H302 Skin Corr. 1A; H314 Acute Tox. 4; H332 Specific Concentration limits (CLP): STOT SE 3; H335; C ≥ 35 % Eye Dam. 1; H318: 8 % ≤ C < 50 % Eye Irrit. 2; H319: 5 % ≤ C < 8 % Ox. Liq. 1; H271: C ≥ 70 % Ox. Liq. 2; H272: 50 % ≤ C < 70 % Skin Corr. 1A; H314: C ≥ 70 % Skin Corr. 1B; H314: 50 % ≤ C < 70 % Skin Irrit. 2; H315: 35 % ≤ C < 50 % Note B
The registration number:	Not applicable. The substance does not exceed 1 ton of imports per year (Article 6 (1) of Regulation 1907/2006 (REACH))



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Substance name:	Formaldehyde
Concentration [%]:	<0.0012
CAS Number:	50-00-0
EC Number:	200-001-8
Index Number:	605-001-00-5
Classification 1272/2008/EC:	Acute Tox. 3; H301 Acute Tox. 3; H311 Skin Corr. 1B; H314 Skin Sens. 1; H317 Acute Tox. 2; H330 Muta. 2; H341 Carc. 1B; H350 STOT SE 3; H335* Specific Concentration limits (CLP): Eye Irrit. 2; H319: 5 % ≤ C < 25 % STOT SE 3; H335: C ≥ 5 % Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 5 % ≤ C < 25 % Skin Sens. 1; H317: C ≥ 0.2 % Note B, D
The registration number:	Not applicable. The substance does not exceed 1 ton of imports per year (Article 6 (1) of Regulation 1907/2006 (REACH))

Substance name:	Methanol
Concentration [%]:	<0.0012
CAS Number:	67-56-1
EC Number:	200-659-6
Index Number:	603-001-00-X
Classification 1272/2008/EC:	Flam. Liq. 2; H225 Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 STOT SE 1; H370 Specific Concentration limits (CLP): STOT SE 1; H370: C ≥ 10 % STOT SE 2; H371: 3 % ≤ C < 10 %
The registration number:	Not applicable. The substance does not exceed 1 ton of imports per year (Article 6 (1) of Regulation 1907/2006 (REACH))

*The additional classification proposed by the manufacturer.

Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3



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entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Note D: Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

In section 16 stated the importance of H-phrases and symbols.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Move the affected person to fresh air and keep rested. Seek medical advice if necessary.

Skin contact: Remove contaminated clothing. Flush contaminated skin with water and soap. Seek medical advice if necessary.

Eye contact: Remove any contact lenses. Flush eyes with a plenty of water, occasionally lifting the upper and lower eyelids. Seek medical advice if necessary.

Ingestion: Do not induce vomiting. Seek medical advice if necessary.

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

Usually, it does not cause negative effects.

4.3. Indication of any immediate medical attention and special treatment needed

Remove affected person from the environment contaminated by the product. In the event of health problems, consult your doctor or the centre of toxicological concern. Provide the information contained in the SDS. If unconscious, do not give anything by mouth.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Extinguishing media to suit surrounding products.

Unsuitable extinguishing media: Water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire hazardous products may be formed: carbon oxide. Avoid inhalation of combustion products, because they may pose a health risk.

5.3. Advice for firefighters

Wear full protective equipment and self-contained breathing apparatus with independent air circulation. Containers exposed to fire or high temperature cool with water and if possible remove from the danger zone. Protect drains, surface waters and soil from pollution.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Access of non-emergency personnel to the area of accident should be restricted until the completion of the disposal of the product. Wear appropriate personal protective equipment. Provide adequate ventilation.



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For emergency responders: Wear appropriate personal protective equipment. Provide adequate ventilation.

6.2. Environmental precautions

Secure the gullies. Prevent contamination of surface water and ground. In the event of any serious pollution of the environment, notify the appropriate administrative authority, control and rescue services. Prevent the product from spreading.

6.3. Methods and material for containment and cleaning up

Secure damaged packaging. Collect the product with inert absorbent materials. Collected product put in a substitute container and direct to the destruction. Ventilate the contaminated area.

6.4. Reference to other sections

Disposal - see Section 13. Personal protective equipment - see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not eat, drink, smoke or take drugs at work. Wash your hands before break and after working with the product. Remove contaminated clothing and wash it before reuse. Provide adequate ventilation when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Keep in properly labelled, factory sealed containers, with a label which complies with current regulations. Store in dry and well ventilated place. Keep only in containers specifically permitted for this product. Keep container tightly closed.

7.3. Specific end use(s)

Fire extinguishing agent.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Substance name	TWA	STEL	BLV
2-(2-butoxyethoxy)ethanol [CAS: 112-34-5]	67.5 mg/m ³ (UK, EU)	101.2 mg/m ³ (UK, EU)	-
Ethanol [CAS: 64-17-5]	1920 mg/m ³ (UK)	-	-
Hydrogen peroxide [CAS: 7722-84-1]	1.4 mg/m ³ (UK)	2.8 mg/m ³ (UK)	-
Formaldehyde [CAS: 50-00-0]	2.5 mg/m ³ (UK)	2.5 mg/m ³ (UK)	-
Methanol [CAS: 67-56-1]	266 mg/m ³ (UK)	333 mg/m ³ (UK)	-

Legal basis: Ordinance on maximum permissible concentration and intensity of harmful factors in the work environment in accordance with national limit values.



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EH40/2005 Workplace exposure limits, fourth edition, published 2020, ISBN 978 0 7176 6733 8.

Monitoring procedures: Use methods described in European Standards.

8.2. Exposure controls

Mandatory general regulations on occupational health. Do not allow to exceed the normative concentrations of hazardous constituents in the workplace. After work, wash and clean the surface of the body and clothing. Do not eat, drink, smoke or take drugs at work. Take off contaminated clothing and wash it before reuse. Wash hands and face before break and after working with the product. Provide adequate ventilation when using the product.

Eye/face protection: It is recommended to use tight protective glasses (in accordance with EN 166).

Skin Protection: It is recommended to wear suitable protective gloves (in accordance with EN 374). Wear suitable protective clothes.

Respiratory protection: In case of insufficient ventilation use appropriate respiratory protection.

Thermal Hazards: Not applicable.

Used personal protective equipment should meet the requirements of local/regional/national laws. The employer must provide personal protective equipment appropriate to the type of work and in accordance with all requirements, including maintenance and cleaning.

Concentrations of hazardous substances in the workplace should be monitored in accordance with acknowledged test methods. Mode, method, type and frequency of testing and measurement of harmful factors in the working environment should meet the requirements of local/regional/national laws.

Environmental exposure controls: The large amount of product should not be allowed to penetrate through the ground water, sewage, waste water or soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Not applicable
Odour:	Characteristic
Melting point/freezing point:	Not applicable
Boiling point or initial boiling point and boiling range:	Not applicable
Flammability:	Not applicable
Lower and upper explosion limit:	Not applicable
Flash point:	Not applicable
Auto-ignition temperature:	Not applicable
Decomposition temperature:	Not applicable
pH:	Not applicable
Kinematic viscosity:	Not applicable
Solubility:	Not applicable



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Partition coefficient n-octanol/water (log value): Not applicable
Vapour pressure: Not applicable
Density and/or relative density: Not applicable
Relative vapour density: Not applicable
Particle characteristics: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not specified.

9.2.2. Other safety characteristics

Not specified.

SECTION 10: Stability and reactivity

10.1. Reactivity

Not reactive under normal conditions of storage.

10.2. Chemical stability

Stable under normal conditions of storage.

10.3. Possibility of hazardous reactions

Not specified.

10.4. Conditions to avoid

Not specified.

10.5. Incompatible materials

Not specified.

10.6. Hazardous decomposition products

None under normal conditions of use and storage.

SECTION 11: Toxicological information

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

Acute toxicity: Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitization: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Not specified.

11.2.2. Other information

Inhalation: Usually, it does not cause negative effects.

Eye contact: Usually, it does not cause negative effects.



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Skin contact: Usually, it does not cause negative effects.

Ingestion: Usually, it does not cause negative effects.

SECTION 12: Ecological information

12.1. Toxicity

Does not meet the criteria of classification as dangerous for the environment.

12.2. Persistence and degradability

Not specified.

12.3. Bioaccumulative potential

Not specified.

12.4. Mobility in soil

Not specified.

12.5. Results of PBT and vPvB assessment

Not applicable.

12.6. Endocrine disrupting properties

Not specified.

12.7. Other adverse effects

Not specified.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

During removal of waste comply with the regional/national laws.

Community legislation:

Directive **2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.

European Parliament and Council Directive **94/62/EC** of 20 December 1994 on packaging and packaging waste as amended.

Disposal methods for the product: Don't introduce into the environment. Disposal in accordance with the local/national legislation.

Disposal methods for used packing: Containers give for appropriate rubbish dump or for disposal in accordance with the local/national legislation.

SECTION 14: Transport information

	ADR	RID	AND	ICAO TI	IMDG
14.1. UN number or ID number	Not applicable.				UN 1044
14.2. UN proper shipping name	Not applicable.				FIRE EXTINGUISHERS with compressed or liquefied gas
14.3. Transport hazard class(es)	Not applicable.				2
14.4. Packing group	Not applicable.				-
14.5. Environmental hazards	Does not meet the criteria of classification as dangerous for the environment.				Not applicable
14.6. Special precautions for user	Personal protective equipment should be used when handling the load - see section 8.				
14.7. Maritime transport in bulk	Not specified				

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according to IMO instruments	
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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 as amended.

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 as amended.

Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Directive **2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

Commission directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Commission directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

Commission directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

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.

Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

15.2. Chemical safety assessment

The Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The full text of statements H under Sections 2 and 3:

- H225 - Highly flammable liquid and vapour.
- H271 - May cause fire or explosion; strong oxidiser.
- H272 - May intensify fire; oxidiser.
- H301 - Toxic if swallowed.
- H302 - Harmful if swallowed.
- H311 - Toxic in contact with skin.



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H314 - Causes severe skin burns and eye damage.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H319 - Causes serious eye irritation.

H330 - Fatal if inhaled.

H331 - Toxic if inhaled.

H332 - Harmful if inhaled.

H335 - May cause respiratory irritation.

H341 - Suspected of causing genetic defects.

H350 - May cause cancer.

H370 - Causes damage to organs.

H371 - May cause damage to organs.

Key to abbreviations and acronyms:

BLV - Biological Limit Value.

Eye Irrit. 2 - Serious eye damage/eye irritation, Hazard Category 2.

STEL - Short-Term Exposure Limit.

TWA - Time Weighted Average.

Acute Tox. 2 - Acute toxicity (inhal.), Hazard Category 2.

Acute Tox. 3 - Acute toxicity (oral, dermal, inhal.), Hazard Category 3.

Acute Tox. 4 - Acute toxicity (oral, (inhal.)), Hazard Category 4.

Carc. 1B - Carcinogenicity, Hazard Category 1B.

Flam. Liq. 2 - Flammable liquids, Hazard Category 2.

Ox. Liq. 1, 2 - Oxidising Liquids, Hazard Category 1, 2.

Eye Dam. 1 - Serious eye damage/eye irritation, Hazard Category 1.

Eye Irrit. 2 - Serious eye damage/eye irritation, Hazard Category 2.

Muta. 2 - Germ cell mutagenicity, Hazard Category 2.

Skin Corr. 1A, 1B - Skin corrosion/irritation, Hazard Category 1, Sub-Categories 1A, 1B.

Skin Irrit. 2 - Skin corrosion/irritation, Hazard Category 2.

Skin Sens. 1 - Sensitisation — Skin, hazard category 1.

STOT SE 1 - Specific target organ toxicity — single exposure, Hazard Category 1.

STOT SE 2 - Specific target organ toxicity — Single exposure, Hazard Category 2.

STOT SE 3 - Specific target organ toxicity — Single exposure, Hazard Category 3, Respiratory tract irritation.

Sources of key data:

Producer SDS from 15th August 2019 (version 2).

Training advice: Before use read the SDS.

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are also treated as aid to safety in transport, storage and usage of the product. This does not free the user from the responsibility of improper usage of the information above also of improper compliance with the law norms in the field.

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SDS from 08.11.2019 (Version 1) has been revised in sections 1.1., 1.3, 2.3., 8.1, 9.1., 9.2.1., 9.2.2., 11.1., 11.2., 11.2.1., 11.2.2., 12.6., 12.7., 15.1. and 14. Changes have been underlined.

This SDS replaces and annuls all the previous versions.