

SAFETY DATA SHEET

In accordance with 2015/830 and 1272/2008

(All references to EU regulations and directives are abbreviated into only the numeric term)

Issued 2016-07-28

Replaces issued SDS 2015-11-04



SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name

Extinguishant -35

Article number

1891, 1831, 1831-200, 1831-1000

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

Identified uses

Fire extinguishing agents

1.3. Details of the supplier of the safety data sheet

Company

Fogmaker International AB

Box 8005

SE-35008 VÄXJÖ

Sweden

+46 470-77 22 00

Telephone

E-mail

info@fogmaker.com

1.4. Emergency telephone number

Acute cases: Call 112, request poison information

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification in accordance with 1272/2008

Upon assessment, this mixture is not classified as hazardous according to 1272/2008.

2.2. Label elements

Label information in accordance with 1272/2008

Hazard pictograms Not applicable

Signal words Not applicable

Hazard statements Not applicable

2.3. Other hazards

Not relevant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is composed of a homogeneous aqueous solution.

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
WATER		
CAS No 7732-18-5 EC No 231-791-2	-	40 - 70%
POTASSIUM FORMATE		
CAS No 590-29-4 EC No 209-677-9	-	10 - 45%
POTASSIUM ACETATE		
CAS No 127-08-2 EC No 204-822-2	-	10 - 45%

ETHANEDIOL		
CAS No 107-21-1 EC No 203-473-3 Index No 603-027-00-1 Reach 01-2119456816-28	Acute Tox <i>4oral</i> , STOT RE 2; H302, H373	< 1%
2-(2-BUTOXYETHOXY)ETHANOL		
CAS No 112-34-5 EC No 203-961-6 Index No 603-096-00-8 Reach 01-2119475104-44	Eye Irrit 2; H319	< 1%
COCAMIDOPROPYL BETAINE		
CAS No 147170-44-3 EC No 931-333-8 Reach 01-2119552480-44	Eye Dam 1, Aquatic Chronic 3; H318, H412	< 1%

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Generally

In case of concern, or if symptoms persist, call a doctor/physician.

Upon breathing in

Move casualty to fresh air and rinse nose, mouth and throat with water.

Upon eye contact

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

Upon skin contact

Remove contaminated clothes.

Wash the skin with soap and water.

Upon ingestion

Rinse nose, mouth and throat with water.

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

No further relevant information available.

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

Symptomatic treatment.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Extinguish with materials intended for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

The product is not hazardous in the flammable sense.

5.3. Advice for fire-fighters

In case of fire use a respirator mask.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use suitable allergy-tested protective gloves when cleaning up.

Do not inhale the product and avoid exposure to skin and eyes.

6.2. Environmental precautions

At amounts considered in this case, the product may be released into the natural environment without serious environmental consequences. Large emissions should however be reported to the emergency services and the Environment Agency.

6.3. Methods and material for containment and cleaning up

Wash off thoroughly with water.

Contaminated products should be treated as chemical waste and declared as non-hazardous goods.

6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Store this product separately from food items and keep it out of the reach of children and pets.

Do not eat, drink or smoke in premises where this product is stored.

7.2. Conditions for safe storage, including any incompatibilities

Store at 5 - 30 °C.

Handle in premises which have modern ventilation standards.

Store in a well-ventilated area, not above eye-level.

Store only in the original package.

7.3. Specific end uses

Not relevant.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. National limit values, United Kingdom

ETHANEDIOL

Time-weighted-average exposure limit (TWA) 20 ppm / 52 mg/m³ Short term exposure limit (STEL) 40 ppm / 104 mg/m³

2-(2-BUTOXYETHOXY)ETHANOL

Time-weighted-average exposure limit (TWA) 10 ppm / 67.5 mg/m³ Short term exposure limit (STEL) 15 ppm / 101.2 mg/m³

Other ingredients (cf. Section 3) have no occupational exposure limit values.

8.2. Exposure controls

In terms of minimizing risks, no special attention is needed for this product besides the general obligations that follow EU directive 89/391 and national occupational legislation.

Eye protection should be worn if there is any danger of direct exposure or splashing.

Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g.

mechanical risks, temperature conditions or microbiological risks. Very sensitive persons can use gloves labelled "Low Chemical resistant" or "Waterproof" or with the pictogram indicated here.

Special measures for protection of the skin are necessary only in rare working situations. In case of doubt, consult occupational expertise. Show this safety data sheet.

Protective breathing equipment should only be required in extreme work-situations. Consult the manufacturer if this is the case.

Dust filter IIb (P2) may be required.

For limitation of environmental exposure, see Section 12.



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

a) Appearance	Form: liquid Colour: Not indicated
b) Odour	Not applicable
c) Odour threshold	Not applicable
d) pH	7-9
e) Melting point/freezing point	-35 °C
f) Initial boiling point and boiling range	109 °C at atmospheric pressure (101325 Pa)
g) Flash point	Not applicable
h) Evaporation rate	Not applicable
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	Not applicable
k) Vapour pressure	Not applicable
l) Vapour density	Not applicable
m) Relative density	Not applicable
n) Solubility	Solubility in water: Soluble

o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	Not applicable
q) Decomposition temperature	Not applicable
r) Viscosity	Not applicable
s) Explosive properties	Not applicable
t) Oxidising properties	Not applicable

9.2. Other information

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Protect from heat.

10.5. Incompatible materials

Avoid contact with zinc and galvanized materials.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

General or unspecific toxicity

The product is not classified as toxic.

Acute effects

Not classified as an acutely toxic substance.

Harmfulness

The product is not classified as harmful to health.

Repeated dose toxicity

To the best of our knowledge, no chronic effects have been reported for this product.

Carcinogenicity

To the best of our knowledge, no carcinogenic effects have been reported for this product.

CMR effects

To the best of our knowledge, no mutagenic or otherwise genetic or reproductive toxic effects have been reported for this product.

Sensibilisation

Hypersensitive reactions cannot be ruled out for persons who are overtly sensitive.

Corrosive and irritating effects

The product is not corrosive. Minor irritation cannot be ruled out for persons who are prone/susceptible.

Synergism and antagonism

To the best of our knowledge, no synergistic effects have been reported for this product or any of its ingredients.

Effect on judgement and other psychological effects

To the best of our knowledge this product does not affect discernment if used in the manner intended.

Effect on human microflora

Effects on human micro flora have not been proven, or are negligible.

Relevant toxicological properties

POTASSIUM ACETATE

LD50 rat (Orally) 24h = 3250 mg/kg

2-(2-BUTOXYETHOXY)ETHANOL

LD50 Mouse (Orally) 24h = 6050 mg/kg

LD50 rabbit (Orally) 24h = 2700 mg/kg

LD50 rat (Orally) 24h = 6600 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

ETHANEDIOL`

LC50 fathead minnow (Pimephales promelas) 96h = 72860 mg/l

EC50 Algae 96h = 6500 mg/l

EC50 Freshwater water flea (Daphnia magna) 48 h = 100 mg/l

`2-(2-BUTOXYETHOXY)ETHANOL

EC50 Freshwater water flea (Daphnia magna) 48 h > 1000 mg/l

LC50 Fish 96h = 2700 mg/l

This product consists of easily degradable naturally occurring or nature identical substances, mainly obtained from renewable sources, whereby the global environmental load may be considered to be negligible. In the local environment minor ecological effects may occur in case of large discharge.

12.2. Persistence and degradability

The product degrades in the natural environment.

12.3. Bioaccumulative potential

Neither this product, nor its contents, accumulates in nature.

12.4. Mobility in soil

No information about mobility in the nature exists but there is no reason to suppose the product to be ecologically harmful because of this.

12.5. Results of PBT and vPvB assessment

No chemical safety report has been executed.

12.6. Other adverse effects

The components of the product have a fertilising effect.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste handling of the product

The product is not classified as hazardous waste.

Also take local regulations for dealing with waste into account.

Recycling of the product

This product is not usually recycled.

Transportation of waste

Not indicated

SECTION 14: TRANSPORT INFORMATION

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number

Not classified as dangerous goods

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

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

SECTION 15: REGULATORY INFORMATION

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

Not applicable.

15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

SECTION 16: OTHER INFORMATION

16a. Indication of where changes have been made to the previous version of the safety data sheet

Revisions of this document

Earlier versions

2015-11-04 The composition of this product was changed

16b. Legend to abbreviations and acronyms used in the safety data sheet

Full texts for Hazard Class and Category Code mentioned in section 3

<i>No phys haz</i>	Non-assigned physical hazard
<i>No tox haz</i>	Not classified as toxic
<i>No environmental hazard</i>	Not classified as being environmentally hazardous
<i>Not Acute Tox</i>	No acute toxicity hazard
<i>Combust Liq</i>	Combustible liquids with flash points > 93 C
<i>Acute Tox 4oral</i>	Acute toxicity (Category 4 oral)
STOT RE 2	Specific target organ toxicity - repeated exposure (Category 2)
Eye Irrit 2	Irritates eyes (Category 2)
Eye Dam 1	Irreversible Eye Effects (Category 1)
Aquatic Chronic 3	Harmful to aquatic life with long-lasting effects (Category Cron 3)

Explanations of the abbreviations in Section 14

ADR	European Agreement concerning the International Transport of Dangerous Goods by Road
RID	Regulations concerning the International Transport of Dangerous Goods by Rail
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG	International Maritime Dangerous Goods Code
ICAO	International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)
IATA	The International Air Transport Association

16c. Key literature references and sources for data

Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2016-07-28.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

- 2015/830 COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- 1272/2008 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
- 89/391 COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work
- 1907/2006 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 Annex I

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

16e. List of relevant hazard statements and/or precautionary statements

Full texts for hazard statements mentioned in section 3

H302 Harmful if swallowed

H373 May cause damage to organs through prolonged or repeated exposure

H319 Causes serious eye irritation

H318 Causes serious eye damage

H412 Harmful to aquatic life with long lasting effects

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment

Warning for misuse

This product is not expected to cause severe harm to humans or the environment. However the manufacturer, the distributor or the supplier cannot be responsible for unusual or criminal use of the product.

Other relevant information

Editorial information

This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, www.kemrisk.se