

BlazeCut Automatic Fire Suppression System

Safety Data Sheet

BlazeCut Fluorine-free Foam Antifreeze

*According to Regulation (EU) No. 1907/2006 (REACH), Annex II
(COMMISSION REGULATION (EU) No 453/2010)*

Version: SDS-FFA-2506-EN

Product name: BlazeCut Fluorine-free Foam Antifreeze

Compilation date: 2025-06-01

Revision date: -

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

1.1 Product identifier

Product name: BlazeCut Fluorine-free Foam Antifreeze

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

Identified uses: Firefighting agent.

Uses advised against: The product should not be used in ways other than those referred to in Section 1.

1.3 Details of the supplier of the SDS

Supplier: BlazeCut Pty Ltd.
Address: Level 24, Three International Towers, 300 Barangaroo Avenue, Sydney,
NSW 2000, Australia
E-mail: technical@blazecutgroup.com
Telephone: +61 2 8006 1300

Distributor: To be input
Address: To be input
E-mail: To be input
Telephone: To be input

1.4 Emergency telephone number

+61 403 006 070 or call local emergency number.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Acute Tox. 4 H302 Harmful if swallowed.

STOT RE 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictogram(s)



GHS07



GHS08

Signal word: Warning

Hazard-determining components of labelling:

ethanediol

Hazard statements:

H302 Harmful if swallowed.

H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

Precautionary statements:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

EUH208 Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: This product does not contain any substances $\geq 0.1\%$ that have been assessed as PBT.

vPvB: This product does not contain any substances $\geq 0.1\%$ that have been assessed as vPvB.

Determination of endocrine-disrupting properties

CAS: 95-14-7 1,2,3-benzotriazole List II

SECTION 3: Composition/information on ingredients

3.2 Mixture

| CAS No | % [weight] | Name |
|-----------|-----------------|------------------------------|
| 107-21-1 | 10 – <30 | ethanediol |
| 112-34-5 | 1 – < 3 | 2-(2-butoxyethoxy)ethanol |
| 95-14-7 | 0.1 – < 1 | 1,2,3-benzotriazole |
| 2634-33-5 | 0.0152 – < 0.02 | 1,2-benzisothiazol-3(2H)-one |

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes:

Take affected persons out of danger area and lay down. Immediately remove any clothing soiled by the product. In case of irregular breathing or respiratory arrest provide artificial respiration

Following inhalation:

If symptoms occur, move affected person to fresh air. If not breathing, give artificial respiration. If symptoms persist, get medical attention promptly.

Following skin contact:

Wash contaminated area with soap or mild detergent. Remove contaminated clothing and shoes.
Wash clothing before reuse.

Following eye contact:

Check for and remove contact lens. Immediately flush with plenty of water for at least 15 minutes.
Get medical attention immediately.

Following ingestion:

Rinse out mouth and then drink plenty of water and consult a doctor. Do **NOT** induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

More information

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Firefighting foam concentrate not flammable. Use fire extinguishing methods suitable to surrounding conditions.

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Carbon monoxide

Carbon dioxide

Nitrogen oxides (NO_x)

Sulphur oxides (SO_x)

Phosphorus compounds

5.3 Advice for fire-fighters

Wear self-contained respiratory protective device.

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment – impervious clothes, wear gloves and goggles. Follow the instructions in Sections 7 and 8.

6.2 Environmental precautions

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations

6.4 Reference to other Section's

See SECTION 7 for information on safe handling.

See SECTION 8 for information on personal protection equipment.

See SECTION 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace

Prevent formation of aerosols.

Information about fire and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

Information about storage in one common storage facility: Store away from oxidising agents.

Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles

Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

| | | |
|--|---|---|
| CAS: 107-21-1 ethanediol | | |
| OEL (Ireland) | Short-term value: 104 mg/m³, 40 ppm Long-term value: 52 mg/m³, 20 ppm | |
| IOELV (EU) | Skin, IOELV Short-term value: 104 mg/m³, 40 ppm Long-term value: 52 mg/m³, 20 ppm Skin | |
| CAS: 112-34-5 2-(2-butoxyethoxy)ethanol | | |
| OEL (Ireland) | Short-term value: 101.2 mg/m³, 12 ppm Long-term value: 67.5 mg/m³, 10 ppm IOELV | |
| IOELV (EU) | Short-term value: 101.2 mg/m³, 15 ppm Long-term value: 67.5 mg/m³, 10 ppm | |
| DNELs | | |
| CAS: 107-21-1 ethanediol | | |
| Dermal | DNEL(long/systemic) | 106 mg/kg bw/day (Workers (Industrial/Professional)) |
| Inhalative | DNEL(long/local) | 35 mg/m3 (Workers (Industrial/Professional)) |
| CAS: 112-34-5 2-(2-butoxyethoxy)ethanol | | |
| Oral | DNEL(long/systemic) | 5 mg/kg bw/day (Consumer) |
| Dermal | DNEL(long/systemic) | 50 mg/kg bw/day (Consumer) 83 mg/kg bw/day (Workers (Industrial/Professional)) |
| Inhalative | DNEL(long/local) | 40.5 mg/m3 (Consumer) 67.5 mg/m3 (Workers (Industrial/Professional)) |
| | DNEL(long/systemic) | 40.5 mg/m3 (Consumer) 67.5 mg/m3 (Workers (Industrial/Professional)) |
| | DNEL(short/local) | 60.7 mg/m3 (Consumer) 101.2 mg/m3 (Workers (Industrial/Professional)) |
| | | |
| | | |

| PNECs | |
|---|---|
| CAS: 112-34-5 2-(2-butoxyethoxy)ethanol | |
| PNEC(aqua) | 1.1 mg/L (freshwater) 0.11 mg/L (marine water) 11 mg/L (intermittent release) |
| PNEC(STP) | 200 mg/L (sewage treatment plant) |
| PNEC(sediment) | 4.4 mg/kg sedi. dw (freshwater) 0.44 mg/kg sedi. dw (marine water) |
| PNEC(soil) | 0.32 mg/kg soil |
| PNEC(oral) | dw (soil) 56 mg/kg food (food) |

8.2 Exposure controls

Appropriate engineering controls:

No further data; see section 7.

Personal protective equipment:

General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection:

Not necessary if room is well-ventilated

Hand protection

Protective gloves

Only use chemical-protective gloves with CE-labelling of category III.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection

Tightly sealed goggles

Body protection:

Protective work clothing

Environmental exposure controls:

Observe the usual precautions to protect the environment, see section 6.2.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|-----------------|
| Physical state | Liquid |
| Form: | Liquid |
| Colour: | Colourless |
| Odour: | Characteristic |
| Odour threshold: | Not determined. |
| Melting point/freezing point: | Not determined. |
| Boiling point or initial boiling point and boiling range | Not determined. |
| Flammability | Not applicable |
| Lower and upper explosion limit | |
| Lower: | Not applicable. |
| Upper: | Not applicable. |
| Flash point: | Not determined. |
| Auto-ignition temperature: | Not determined. |
| Decomposition temperature: | Not determined |
| pH at 20 °C | 6 - 9 |
| Viscosity: | |
| Kinematic viscosity | Not determined. |
| Dynamic at 20 °C: | Not determined. |
| Solubility | |
| water: | Fully miscible. |

| | | |
|-----------|------------------------------|--|
| 107-21-1 | ethanediol | -1,36 logPow (calculated) |
| 112-34-5 | 2-(2-butoxyethoxy)ethanol | 1 logPow (20°C, pH 7, OECD Guideline 117) |
| 95-14-7 | 1,2,3-benzotriazole | 1,17 (@22,7 °C, OECD Guideline 107) |
| 2634-33-5 | 1,2-benzisothiazol-3(2H)-one | 0,7 log Pow (20 °C, pH 7, EU Method A.8) |

| | |
|---------------------------------|-----------------|
| Vapour pressure: | Not determined. |
| Density and/or relative density | |
| Density at 20 °C: | Not determined. |
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Relative gas density | Not determined. |
| Particle characteristics | Not applicable. |

9.2 Other information

| | |
|-----------------------|---|
| Explosive properties: | Product does not present an explosion hazard. |
| Refractive index | 1.39 - 1.43 |
| Solvent content: | |
| Organic solvents: | 1.5 % |
| Water: | 55 % |
| Molecular weight | Not applicable. |
| Oxidising properties | No |
| Evaporation rate | Not determined |

SECTION 10: Stability and reactivity

10.1 Reactivity

not available

10.2 Chemical stability

No decomposition if used and stored according to specifications.

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions

No dangerous reactions known.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

No dangerous decomposition products known.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if swallowed.

CAS: 107-21-1 ethanediol

| | | |
|-------------------|------|---|
| Oral | LD50 | 500 mg/kg (ATE) |
| Dermal | LD50 | > 3500 mg/kg (mouse) |
| Inhalative | LC50 | > 2.5 mg/L (Rat) (inhalation: aerosol) 6 h |

CAS: 112-34-5 2-(2-butoxyethoxy)ethanol

| | | |
|---------------|------|--|
| Oral | LD50 | 2410 mg/kg (mouse) (OECD Guideline 401) |
| Dermal | LD50 | 2764 mg/kg (rabbit) (OECD Guideline 402) |

Primary irritant effect:

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 sensitisation 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 May cause damage to the kidneys through prolonged or repeated exposure.

Route of exposure: Oral.

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

11.2 Information on other hazards

| Endocrine disrupting properties | | |
|---------------------------------|---------------------|---------|
| CAS: 95-14-7 | 1,2,3-benzotriazole | List II |

SECTION 12: Ecological information

12.1 Toxicity

| Aquatic toxicity: | | |
|---|--|--|
| CAS: 107-21-1 ethanediol | | |
| LC50 (96h) (static) | 72860 mg/L (fish) (EPA 600/4-90/027, Pimephales promelas) | nominal |
| EC20 (0,5h) (static) | > 1995 mg/L (Bacteria) (ISO 8192) Read-across to CAS 111-46-6 | |
| EC50 (96h) (static) | 6500 - 13000 mg/L (algae) (EPA 600/9-78-018, Pseudokirchnerella subcapitata) | |
| EC50 (48h) (static) | > 100 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna) | |
| NOEC | 8590 mg/L (Daphnia) (EPA 600/4-89/001, Ceriodaphnia dubia) | 7d nominal 15380 mg/L (fish) (EPA 600/4-89/001, Pimephales promelas) 7 d nominal |
| CAS: 112-34-5 2-(2-butoxyethoxy)ethanol | | |
| LC50 (96h) (static) | 1300 mg/L (fish) (OECD Guideline 203, Lepomis macrochirus) | nominal |
| EC10 (0,5h) (static) | > 1995 mg/L (Bacteria) (OECD Guideline 209, activated sludge) | nominal |
| EC50 (96h) (static) | > 100 mg/L (algae) (OECD Guideline 201, Desmodesmus subspicatus) | nominal |
| EC50 (48h) (static) | > 100 mg/L (Daphnia) (EU Method C.2, Daphnia magna) | nominal |
| 12.2 Persistence and degradability | | |
| 107-21-1 | ethanediol | 90-100% (10d, OECD Guideline 301A) |
| 112-34-5 | 2-(2-butoxyethoxy)ethanol | 85 % (28d, OECD Guideline 301 C) |
| 95-14-7 | 1,2,3-benzotriazole | 2 % (28d) |
| 2634-33-5 | 1,2-benzisothiazol-3(2H)-one | 80% (OECD Guideline 303A) |
| 12.3 Bioaccumulative potential | | |
| 95-14-7 | 1,2,3-benzotriazole | 2,5 BCF |
| 2634-33-5 | 1,2-benzisothiazol-3(2H)-one | 6,62 BCF (OECD Guideline 305) |
| 12.4 Mobility in soil | | |
| 2634-33-5 | 1,2-benzisothiazol-3(2H)-one | ca. 0,97 log Koc (25 °C, OECD Guideline 121) |

12.5 Results of PBT and vPvB assessment

This product does not contain any substances $\geq 0.1\%$ that have been assessed as PBT.

This product does not contain any substances $\geq 0.1\%$ that have been assessed as vPvB.

12.6 Endocrine disrupting properties

For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1 Waste treatment methods

Must be specially treated adhering to official regulations.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

In accordance with ADR, RID, IMDG, IATA, AND

Exempt from transport classification and labelling

14.1 UN Number or ID number

ADR/RID/ADN, IMDG, IATA Void

14.2 UN proper shipping name

ADR/RID/ADN, IMDG, IATA Void

14.3 Transport hazard class(es)

ADR/RID/ADN, IMDG, IATA Void

14.4 Packing group

ADR/RID/ADN, IMDG, IATA Void

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable

Transport/Additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

Void

SECTION 15: Regulatory information

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 65

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

16.1 Revision Information

2025-06-01 SDS-FFF-2506-EN MS First Compiled

16.2 Abbreviations and acronyms

| | |
|--------|---|
| CAS | Unique Numeric Identifier used in chemistry for chemical substances |
| CLP | Classification, Labelling and Packaging |
| CSN | Czech Technical Standard |
| EC50 | Concentration of a substance when it is affected 50% of the population |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| Ems | Emergency plan |
| IATA | International Air Transport Association |
| IBC | International Code For The Construction And Equipment of Ships Carrying Dangerous |
| IC50 | Chemicals Concentration causing 50 % blockade |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods Transport |
| LC50 | Lethal concentration of a substance in which it can be expected death of 50% of the |
| LD50 | population |
| MARPOL | Lethal dose of a substance in which it can be expected death of 50% of the population |
| MFAG | International Convention for the Prevention of Pollution From Ships |
| NPK | First Aid Manual |
| PBT | The maximum permissible concentration |
| PEL | Persistent ,Bio accumulative and Toxic |
| REACH | Permissible Exposure Limit |

| | |
|------|---|
| RID | Registration, Evaluation and Restriction of chemicals (EP and Council Regulation (EC) |
| SVHC | No.1907/2006) |
| vPvB | Regulations concerning the International carriage of Dangerous goods by rail. |
| WGK | Substances of very high concern. Very Persistent and very Bio accumulative Wassergefährdungsklasse (Water Hazard Class) |

16.3 Key literature references and sources for data

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended, REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended,

COMMISSION REGULATION (EU) No 453/2010, COUNCIL DIRECTIVE 67/548/EEC as amended and 1999/45/EC, COMMISSION REGULATION (EU) No 286/2011 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures

16.4 Relevant R-phrases/H-statements

In pressurized cylinders only

H280 Contains gas under pressure; may explode if heated.

16.5 Training advice

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the mixture.

16.6 Declare to reader

The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety preventive measures for the users who have got professional training. The personal user who obtained this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage. According to REACH Article 31(5), the SDS shall be supplied in an official language of the Member State(s) where the substance or mixture is placed on the market, unless the recipient Member State(s) concerned provide otherwise. It should also be noted that this SDS is applicable to the countries with English as an official language.

----- End of the SDS -----