

BC Extinguisher

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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Supersedes: 2015/05/05

Version: 01.01

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

1.1. Product identifier

Product form	: Substances
Trade name	: BC Extinguisher
EC no	: 205-633-8
CAS No	: 144-55-8
Product code	: 328/473
Type of product	: Pure substance, Hygroscopic substance. Preventive measures apply to the substance in dry state only
Formula	: NaHCO ₃
Synonyms	: BC powder
Product group	: Trade product

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

1.2.1. Relevant identified uses

Main use category	: Professional use, Industrial use
Use of the substance/mixture	: Fire extinguishing medium

1.2.2. Uses advised against

Restrictions on use	: Any other intended applications should be discussed with the manufacturer
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1.3. Details of the supplier of the safety data sheet

Belmic Bvba
Assesteeweg 117/2

B-1740 Ternat

Tel.: +32 (0)2 460 62 10
E-mail: belmic@belmic.com
Mrs. Sarah Petit

1.4. Emergency telephone number

Emergency number	: +32 (0)70 245 245 Anti-poison Center
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

No labelling applicable

2.3. Other hazards

Other hazards not contributing to the classification	: None under normal conditions. Potential dust explosion hazard.
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SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type	: Mono-constituent
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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sodium bicarbonate	(CAS No) 144-55-8 (EC no) 205-633-8	>= 90	Not classified

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If you feel unwell, seek medical advice.
- First-aid measures after inhalation : Remove victim to fresh air. Respiratory problems: consult a doctor/medical service.
- First-aid measures after skin contact : Rinse with water. Soap may be used. Consult a doctor/medical service.
- First-aid measures after eye contact : Rinse with water. Take victim to a doctor/medical service if irritation persists. Take victim to an ophthalmologist if irritation persists.
- First-aid measures after ingestion : Rinse mouth out with water. Immediately after ingestion: give lots of water to drink. Consult a doctor/medical service if you feel unwell.

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

- Symptoms/injuries : No significant signs or symptoms indicative of any health hazard are expected to occur. Dust may cause mechanical irritation.

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

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Adapt extinguishing media to the environment.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Non combustible.
- Explosion hazard : Not applicable.
- Reactivity in case of fire : Evolution of fumes.
- Hazardous decomposition products in case of fire : None known.

5.3. Advice for firefighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Consider evacuation.
- Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat.
- Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.
- Other information : Avoid dust formation. Avoid release to the environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Ensure adequate air ventilation. Avoid dust formation. May be dangerously slippery if spilled.

6.1.1. For non-emergency personnel

- Protective equipment : For further information refer to section 8: "Exposure controls/personal protection".
- Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

6.1.2. For emergency responders

- Protective equipment : For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.
- Methods for cleaning up : Stop dust cloud by humidifying with water. Scoop solid spill into closing containers. Wash down leftovers with plenty of water.

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Other information : Avoid dust formation.

6.4. Reference to other sections

Reference to other sections (8, 13). SECTION 7.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : None under normal use. Potential dust explosion hazard.
Precautions for safe handling : Thoroughly clean/dry the installation before use. Avoid raising dust. Keep container tightly closed. Ensure good ventilation of the work station.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Use grounded electrical/mechanical equipment.
Storage conditions : Keep container tightly closed and in a well-ventilated place. Keep container tightly closed to avoid moisture absorption and contamination.
Incompatible products : Keep away from reducing agents/(strong) acids /(strong) bases. Moisture.
Incompatible materials : None known.
Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.
Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. water/moisture.
Storage area : Store in a dry area. Keep out of direct sunlight.
Special rules on packaging : SPECIAL REQUIREMENTS: hermetical. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

BC Extinguisher (144-55-8)		
EU	IOELV TWA (mg/m ³)	5 mg/m ³ respirable dust

8.2. Exposure controls

Appropriate engineering controls:

General exposure limit for inhalable particulate matter. If possible with source exhaust and good ventilation.

Personal protective equipment:

Dust production: dust mask with filter type P1. Dustproof clothing. In case of dust production: protective goggles. Gloves.

Materials for protective clothing:

No data available

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other. Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing

Eye protection:

Safety glasses. In case of dust production: protective goggles

Skin and body protection:

Protective clothing

Respiratory protection:

Dust production: dust mask with filter type P1

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Thermal hazard protection:

On heating: self-contained breathing apparatus.

Environmental exposure controls:

Assure that emissions are compliant with all applicable air pollution control regulations. Refer to all applicable national, international and local regulations or provisions.

Other information:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Molecular mass	: 84,01 g/mol
Colour	: White.
Odour	: Odourless.
Odour threshold	: Not determined
pH	: 8,5
Relative evaporation rate (butylacetate=1)	: Not determined
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: 60 °C
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: Not determined
Relative vapour density at 20 °C	: Not determined
Relative density	: Not determined
Density	: 1000 - 1500 kg/m ³
Solubility	: Moderately soluble in water.
Log Pow	: Not determined
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.
Oxidising properties	: Not applicable.
Explosive limits	: Not determined

9.2. Other information

Minimum ignition energy	: Not applicable
VOC content	: Not applicable (inorganic)
Bulk density	: Not determined
Other properties	: Hygroscopic. Substance has basic reaction.
Additional information	: No further information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes slowly in moist air and on exposure to temperature rise: release of harmful gases/vapours (carbon dioxide). Reacts violently with (some) acids.

10.2. Chemical stability

Hygroscopic.

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10.3. Possibility of hazardous reactions

Potential dust explosion hazard.

10.4. Conditions to avoid

Keep away from heat and direct sunlight. Avoid dust formation.

10.5. Incompatible materials

acids and bases. Strong oxidizers.

10.6. Hazardous decomposition products

Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

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LD50 oral rat	mg/kg
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 8,5
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 8,5
Additional information	: May cause slight irritation to eyes
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: May cause slight irritation.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Potential adverse human health effects and symptoms	: Dust may cause mechanical irritation. Virtually non toxic after a single ingestion.
Other information	: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008.
Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water : Do not allow the product to be released into the environment.
Acute aquatic toxicity : Not classified
Chronic aquatic toxicity : Not classified

12.2. Persistence and degradability

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Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

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Log Pow	Not determined
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

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Ecology - soil	No specific data.
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

- Other adverse effects : When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Regional legislation (waste) : Disposal must be done according to official regulations.
- Waste treatment methods : Collect all waste in suitable and labelled containers and dispose according to local legislation.
- Sewage disposal recommendations : Do not discharge into drains or the environment.
- Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Recycle/reuse. Precipitate/make insoluble. Remove to an authorized dump. Do not discharge into the sewer. Do not discharge into surface water. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.
- Additional information : Handle uncleaned empty containers as full ones. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Not regulated

- Transport by sea

Not regulated

- Air transport

Not regulated

- Inland waterway transport

Not regulated

- Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

BC Extinguisher is not on the REACH Candidate List

BC Extinguisher is not on the REACH Annex XIV List

VOC content : Not applicable (inorganic)

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Other information, restriction and prohibition regulations : No further information available. Ensure all national/local regulations are observed. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product.

15.1.2. National regulations

Users should ensure that they comply with any relevant local, provincial or national legislation.

15.2. Chemical safety assessment

The substance is not hazardous
No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Revised SDS according to Commission Regulation (EU) N°2015/830.

Section	Changed item	Change	Comments
9.1		Added	
16	Additional information	Added	

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rai
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

Data sources : Manufacturer/Supplier. Authoring: . Quick.MSDS Sprl - Belgium info@quickmsds.de +32 (0) 479 469 465.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Other information : No further information available.

MSDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product