

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

1.1. Product identifier

Trade name or designation of the mixture	BIOWELD
Registration number	-
Synonyms	None.
Product code	BDS002567AE
Issue date	05-December-2022
Version number	1.0
Revision date	05-December-2022

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

Identified uses	Welding Products
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Company name	CRC Industries UK Ltd.
Address	Wylds Road Castlefield Industrial Estate TA6 4DD Bridgwater Somerset United Kingdom
Telephone	+44 1278 727200
Fax	+44 1278 425644
E-mail	hse.uk@crcind.com
Website	www.crcind.com

Company name	CRC Industries Europe bv
Address	Touwslagerstraat 1 9240 Zele Belgium
Telephone	+32(0)52/45.60.11
Fax	+32(0)52/45.00.34
E-mail	hse@crcind.com
Website	www.crcind.com

1.4. Emergency telephone number	Tel.:(+44)(0)1278 72 7200 (office hours: 9-17h GMT)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards		
Aerosols	Category 3	H229 - Pressurized container: May burst if heated.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms	None.
Signal word	Warning
Hazard statements	
H229	Pressurized container: May burst if heated.

Precautionary statements

Prevention

P102 Keep out of reach of children.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P251 Do not pierce or burn, even after use.

Response

Not assigned.

Storage

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

Not assigned.

Supplemental label information

18% by mass of the contents are flammable. EUH208 - Contains 1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one. May produce an allergic reaction.

2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Dimethyl ether	10 - 25	115-10-6 204-065-8	-	603-019-00-8	#
Classification: Press. Gas;H280					
1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one	<0.05	2634-33-5 220-120-9	01-2120761540-60	613-088-00-6	
Classification: Acute Tox. 4;H302, Acute Tox. 2;H330, Skin Irrit. 2;H315, Eye Dam. 1;H318, Skin Sens. 1;H317, Aquatic Acute 1;H400, Aquatic Chronic 2;H411					

List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.
M: M-factor
vPvB: very persistent and very bioaccumulative substance.
PBT: persistent, bioaccumulative and toxic substance.
#: This substance has been assigned Union workplace exposure limit(s).
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments

Occupational Exposure Limits for constituents are listed in Section 8. The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation If symptoms develop move victim to fresh air. Get medical attention if symptoms persist.
Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact Rinse with water. Get medical attention if irritation develops and persists.
Ingestion In the unlikely event of swallowing contact a physician or poison control centre.

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

Exposure may cause temporary irritation, redness, or discomfort.

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

Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards

Not available.

5.1. Extinguishing media

Suitable extinguishing media Dry powder. Carbon dioxide (CO₂).
Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Containers should be cooled with water to prevent vapour pressure build up.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Wear appropriate personal protective equipment.

For emergency responders Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

6.2. Environmental precautions Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

6.4. Reference to other sections For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Pressurised container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not re-use empty containers. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store away from incompatible materials (see Section 10 of the SDS).

Storage class (TRGS 510): 2B (Aerosol dispensers and lighters)

7.3. Specific end use(s) Observe industrial sector guidance on best practices.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Dimethyl ether (CAS 115-10-6)	STEL	958 mg/m3
		500 ppm
	TWA	766 mg/m3
		400 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs)

General population

Components	Value	Assessment factor	Notes
1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one (CAS 2634-33-5)			
Long-term, Systemic, Dermal	0.345 mg/kg bw/day	200	Repeated dose toxicity
Long-term, Systemic, Inhalation	1.2 mg/m3	50	Repeated dose toxicity

Workers

Components	Value	Assessment factor	Notes
1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one (CAS 2634-33-5)			
Long-term, Systemic, Dermal	0.966 mg/kg bw/day	100	Repeated dose toxicity

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Use eye protection conforming to EN 166. Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection For accidental contact the use of disposable gloves should be sufficient provided they are changed immediately after a splash or spill may occur. If intentional contact is expected reusable gloves should be used with a breakthrough time greater than the total duration of the product use. Nitrile gloves are recommended.

- Other Not available.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. Chemical respirator with organic vapour cartridge. (Filter type A)

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Liquid.

Form Aerosol.

Colour Milky.

Odour Characteristic odor.

Odour threshold Not available.

pH 8.5 - 9.5

Melting point/freezing point 0 °C (32 °F) estimated

Initial boiling point and boiling range 100 °C (212 °F) estimated

Flash point 101.0 °C (213.8 °F) Open cup

Evaporation rate Not applicable.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit – upper (%) Not available.

Vapour pressure Not available.

Vapour density Not available.

Relative density 0.99 g/cm³ at 20°C

Solubility(ies)

Solubility (water) Soluble in water

Partition coefficient (n-octanol/water) Not applicable.

Auto-ignition temperature > 200 °C (> 392 °F)

Decomposition temperature Not available.

Viscosity > 7 mPa·s at 40°C

Explosive properties Not explosive.

Oxidising properties Not oxidising.

9.2. Other information

Aerosol spray enclosed space

Deflagration density > 300 s/m³

Aerosol spray ignition distance < 15 cm

VOC 170 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid Avoid high temperatures.

10.5. Incompatible materials Strong oxidising agents.

10.6. Hazardous decomposition products Carbon oxides.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.

Skin contact May cause an allergic skin reaction.

Eye contact Based on available data, the classification criteria are not met.

Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms Exposure may cause temporary irritation, redness, or discomfort.

11.1. Information on toxicological effects

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

Components	Species	Test Results
Dimethyl ether (CAS 115-10-6)		
<u>Acute</u>		
Inhalation		
LC50	Rat	308.5 mg/l, 4 Hours
Skin corrosion/irritation		Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation		Based on available data, the classification criteria are not met.
Respiratory sensitisation		Based on available data, the classification criteria are not met.
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.
Specific target organ toxicity - single exposure		Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure		Based on available data, the classification criteria are not met.
Aspiration hazard		Not likely, due to the form of the product.
Mixture versus substance information		Not available.
Other information		May cause allergic respiratory and skin reactions.

SECTION 12: Ecological information

12.1. Toxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species		Test Results
1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one (CAS 2634-33-5)			
Aquatic			
<i>Acute</i>			
Crustacea	LC50	Harpacticoid copepod (<i>Nitocra spinipes</i>)	>= 21 - <= 30 mg/l, 96 hours
Fish	LC50	Bleak (<i>Alburnus alburnus</i>)	>= 8 - <= 13 mg/l, 96 hours
Dimethyl ether (CAS 115-10-6)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	4.4 mg/l
Fish	LC50	Fish	4.1 mg/l
12.2. Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.		
12.3. Bioaccumulative potential			
Partition coefficient n-octanol/water (log Kow)			
Dimethyl ether	0.1		
Bioconcentration factor (BCF)	Not available.		
12.4. Mobility in soil	No data available.		
12.5. Results of PBT and vPvB assessment	This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.		
12.6. Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential. GWP: 0		
Substance Global Warming Potential per (Annex IV), Regulation 517/2014/EU on fluorinated greenhouse gases, as amended			
Dimethyl ether (CAS 115-10-6)	1		

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN1950
14.2. UN proper shipping name	AEROSOLS, asphyxiant
14.3. Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Label(s)	2.2
Hazard No. (ADR)	Not assigned.
Tunnel restriction code	E
ADR/RID - Classification code:	5A
14.4. Packing group	Not assigned.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number	UN1950
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14.2. UN proper shipping name AEROSOLS, asphyxiant

14.3. Transport hazard class(es)
 Class 2.2
 Subsidiary risk -
 Label(s) 2.2

14.4. Packing group Not assigned.

14.5. Environmental hazards No.

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number UN1950

14.2. UN proper shipping name AEROSOLS, asphyxiant

14.3. Transport hazard class(es)
 Class 2.2
 Subsidiary risk -
 Label(s) 2.2

14.4. Packing group Not assigned.

14.5. Environmental hazards No.

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number UN1950

14.2. UN proper shipping name Aerosols, non-flammable

14.3. Transport hazard class(es)
 Class 2.2
 Subsidiary risk -

14.4. Packing group Not assigned.

14.5. Environmental hazards No.

ERG Code 2L

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information
 Passenger and cargo aircraft Allowed with restrictions.
 Cargo aircraft only Allowed with restrictions.

IMDG

14.1. UN number UN1950

14.2. UN proper shipping name Aerosols, non-flammable

14.3. Transport hazard class(es)
 Class 2.2
 Subsidiary risk -

14.4. Packing group Not assigned.

14.5. Environmental hazards
 Marine pollutant No.

EmS F-D, S-U

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.



SECTION 15: Regulatory information

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

Retained direct EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Dimethyl ether (CAS 115-10-6)

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one (CAS 2634-33-5)

Dimethyl ether (CAS 115-10-6)

Other regulations

This product is classified and labelled in accordance with the retained CLP Regulation (EC) No 1272/2008, as amended for Great Britain. This Safety Data Sheet is compiled in accordance with REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758.

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

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.

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).

ATE: Acute Toxicity Estimate according to REGULATION (EC) No 1272/2008 (CLP).

CAS: Chemical Abstract Service.

Ceiling: Short Term Exposure Limit Ceiling value.

CEN: European Committee for Standardization.

CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.

GWP: Global Warming Potential.

IATA: International Air Transport Association.
IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.
IMDG: International Maritime Dangerous Goods.
MAC: Maximum Allowed Concentration.
MAK: Threshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG).
MARPOL: International Convention for the Prevention of Pollution from Ships.
PBT: Persistent, bioaccumulative and toxic.
REACH: Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals).
RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer).
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
STEL: Short term exposure limit.
TLV: Threshold Limit Value.
TWA: Time Weighted Average.
VLE: Exposure Limit Value.
VME: Exposure Average Value.
VOC: Volatile organic compounds.
vPvB: Very persistent and very bioaccumulative.
STEL: Short-term Exposure Limit.
Not available.

References

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements, which are not written out in full under sections 2 to 15

H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Revision information

None.

Training information

Follow training instructions when handling this material.

Disclaimer

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