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DIESEL BIOCIDE SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)

SAFETY DATA SHEET

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

1.1 Product identifier

Product name	**Busan DFP-E**
Industry:	Fuel
Product use:	Biocide
Physical state	Liquid.
Other means of identification	Not available.

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

Not applicable.

1.3 Details of the supplier of the safety data sheet

Manufacturer

Distributor

e-mail address of person responsible for this SDS

1.4 Emergency telephone number

Supplier

Telephone number

Hours of operation

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition Mixture

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification	Repr. Cat. 3; R63 T; R23 Xn; R22 Xi; R36 R43 N; R50/53
Human health hazards	Possible risk of harm to the unborn child. Toxic by inhalation. Harmful if swallowed. Irritating to eyes. May cause sensitisation by skin contact.
Environmental hazards	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard symbol or symbols

Indication of danger Toxic, Dangerous for the environment

Risk phrases

R63- Possible risk of harm to the unborn child.
R23- Toxic by inhalation.
R22- Harmful if swallowed.
R36- Irritating to eyes.
R43- May cause sensitisation by skin contact.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

S23- Do not breathe vapour or spray.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28- After contact with skin, wash immediately with plenty of water.
S36/37- Wear suitable protective clothing and gloves.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60- This material and its container must be disposed of as hazardous waste.
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

Hazardous ingredients

2-(2-methoxyethoxy)ethanol
(benzothiazol-2-ylthio)methyl thiocyanate
methylene dithiocyanate

Supplemental label elements Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings	Not applicable.
Tactile warning of danger	Not applicable.

Other hazards which do not result in classification Not available.

Busan DFP-E

SECTION 3: Composition/information on ingredients

Substance/mixture Mixture

Product/ingredient name	Identifiers	%	Classification 67/548/EEC	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
2-(2-methoxyethoxy)ethanol	EC: 203-906-6 CAS: 111-77-3 Index: 603-107-00-6	75-90	Repr. Cat. 3; R63	Repr. 2, H361d	[1] [2]
Poly(oxy-1,2-ethanediyl), alpha-isodecyl-omega-hydroxy-	CAS: 61827-42-7	3-5	Xn; R22 Xi; R41	Acute Tox. 4, H302 Eye Dam. 1, H318	[1]
(benzothiazol-2-ylthio)methyl thiocyanate	EC: 244-445-0 CAS: 21564-17-0 Index: 613-119-00-3	2,5-3	T+; R26 Xn; R22 Xi; R36/38 R43 N; R50/53	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
methylene dithiocyanate	EC: 228-652-3 CAS: 6317-18-6 Index: 615-020-00-0	1-3	T+; R26 T; R25 C; R34 R43 N; R50	Acute Tox. 3, H301 Acute Tox. 1, H330 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400	[1]
			See Section 16 for the full text of the R-phrases declared above.	**See Section 16 for the full text of the H statements declared above.**	

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention. Continue to rinse for at least 20 minutes.

Inhalation Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

Ingestion	Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	Irritating to eyes.
Inhalation	Toxic by inhalation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	May cause skin irritation. May cause sensitisation by skin contact.
Ingestion	Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact	Adverse symptoms may include the following: irritation watering redness
Inhalation	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	Adverse symptoms may include the following: irritation redness reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Use dry chemical, CO_2, water spray (fog) or foam.
Unsuitable extinguishing media	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

Hazards from the substance or mixture	Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Hazardous combustion products	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides Danger for decomposition with formation of HCN

5.3 Advice for firefighters

Special precautions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and materials for containment and cleaning up

Spill	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

6.4 Reference to other sections	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure during pregnancy. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Refer to special instructions/safety data sheet. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations

Not available.

Industrial sector specific solutions

Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
2-(2-methoxyethoxy)ethanol	**EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin.** TWA: 10 ppm 8 hour(s). TWA: 50,1 mg/m³ 8 hour(s).

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

No DELs available.

Predicted effect concentrations

No PECs available.

SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. If user operations generate a temperature above the flash point: Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: Safety glasses. , splash goggles , face shield .

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Wear suitable protective clothing, gloves and eye/face protection.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will 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.
Colour	Yellow to amber liquid
Odour	Not available.
Odour threshold	Not available.
pH	Not applicable.
Melting point/freezing point	-18°C
Initial boiling point and boiling range	Not available.
Flash point	Closed cup: 87°C [Pensky-Martens.]
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Burning time	Not applicable.
Burning rate	Not applicable.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.

SECTION 9: Physical and chemical properties

Density	1 to 1,04 g/cm³ [25°C (77°F)]
Solubility(ies)	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Dynamic: 0 to 200 mPa·s
Explosive properties	Not available.
Oxidising properties	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

Under normal conditions of storage and use, hazardous reactions will not occur.
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Avoid exposure during pregnancy. If user operations generate a temperature above the flash point: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials

Reactive or incompatible with the following materials:
oxidizing materials
Cyanide salts are formed in contact with strong alkali

10.6 Hazardous decomposition products

Danger for decomposition with formation of HCN

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Poly(oxy-1,2-ethanediyl), alpha-isodecyl-omega-hydroxy-	LD50 Oral	Rat	1360 mg/kg	-
methylene dithiocyanate	LC50 Inhalation Vapour	Rat	0,032 mg/l	4 hours
	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat	55 mg/kg	-

Conclusion/Summary Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Poly(oxy-1,2-ethanediyl), alpha-isodecyl-omega-hydroxy-	Eyes - Severe irritant	Rabbit	-	24 hours 100 microliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 microliters	-

Sensitiser

SECTION 11: Toxicological information

Conclusion/Summary	Not available.

Mutagenicity

Conclusion/Summary	Not available.

Carcinogenicity

Conclusion/Summary	Not available.

Reproductive toxicity

Conclusion/Summary	Not available.

Teratogenicity

Conclusion/Summary	Not available.
Information on the likely routes of exposure	Not available.

Potential acute health effects

Inhalation	Toxic by inhalation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	Harmful if swallowed.
Skin contact	May cause skin irritation. May cause sensitisation by skin contact.
Eye contact	Irritating to eyes.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	Adverse symptoms may include the following: irritation redness reduced foetal weight increase in foetal deaths skeletal malformations
Eye contact	Adverse symptoms may include the following: irritation watering redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	Not available.
Potential delayed effects	Not available.

Long term exposure

Potential immediate effects	Not available.
Potential delayed effects	Not available.

Potential chronic health effects

Not available.

Conclusion/Summary	Not available.
General	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	May cause birth defects, based on animal data.
Developmental effects	No known significant effects or critical hazards.

SECTION 11: Toxicological information

Fertility effects No known significant effects or critical hazards.

Other information Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-(2-methoxyethoxy)ethanol	Acute LC50 7500000 ug/L Fresh water	Fish - Lepomis macrochirus - 33 to 75 mm	96 hours
Poly(oxy-1,2-ethanediyl), alpha-isodecyl-omega-hydroxy-	Acute EC50 10 to 100 mg/l	Algae	72 hours Based on similar product.
	Acute EC50 10 to 100 mg/l	Daphnia	48 hours Based on similar product.
(benzothiazol-2-ylthio)methyl thiocyanate	Acute EC50 15,3 ug/L Fresh water	Daphnia - Ceriodaphnia dubia - Neonate - <24 hours	48 hours
	Acute LC50 7,3 ug/L Fresh water	Fish - Oncorhynchus tshawytscha - Juvenile (Fledgling, Hatchling, Weanling) - 7,3 cm - 5,3 g	96 hours
methylene dithiocyanate	Acute EC50 0,0115 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 42 ug/L Fresh water	Algae - Chlorella pyrenoidosa	96 hours
	Acute EC50 39 ppb Fresh water	Daphnia - Daphnia magna - <24 hours	48 hours
	Acute LC50 89 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute NOEC 0,0026 mg/l	Daphnia - Crassostrea virginica	-
	Acute NOEC 0,0095 mg/l	Fish - Oncorhynchus mykiss	-

Conclusion/Summary Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Poly(oxy-1,2-ethanediyl), alpha-isodecyl-omega-hydroxy-	OECD 301B 301B Ready Biodegradability - CO2 Evolution Test	>60 % - Readily - 28 days	-	-
methylene dithiocyanate	-	79 % - Readily - 30 days	-	-
	-	60 % - 28 days	-	-

Conclusion/Summary Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Poly(oxy-1,2-ethanediyl), alpha-isodecyl-omega-hydroxy-	-	-	Readily
methylene dithiocyanate	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
methylene dithiocyanate	0,34	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) Not available.

Mobility Not available.

SECTION 12: Ecological information

12.5 Results of PBT and vPvB assessment

PBT	Not applicable.
vPvB	Not applicable.

12.6 Other adverse effects No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

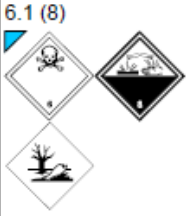
Hazardous waste The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	UN2927	UN2927	UN2927	UN2927
14.2 UN proper shipping name	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. ((benzothiazol-2-ylthio)methyl thiocyanate, methylene dithiocyanate)	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. ((benzothiazol-2-ylthio)methyl thiocyanate, methylene dithiocyanate)	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. ((benzothiazol-2-ylthio)methyl thiocyanate, methylene dithiocyanate). Marine pollutant ((benzothiazol-2-ylthio)methyl thiocyanate, methylene dithiocyanate)	Toxic liquid, corrosive, organic, n.o.s. ((benzothiazol-2-ylthio)methyl thiocyanate, methylene dithiocyanate)
14.3 Transport hazard class(es)	6.1 (8) 	6.1 (8) 	6.1 (8) 	6.1 (8) 

SECTION 14: Transport information

14.4 Packing group	II	II	II	II
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.
14.6 Special precautions for user	Not available.	Not available.	Not available.	Not available.
Additional information	**Hazard identification number** 68 **Limited quantity** LQ17 **Special provisions** 274 **Tunnel code** D/E	-	**Emergency schedules (EmS)** F-A, S-B	**Passenger and Cargo Aircraft** Quantity limitation: 1 L Packaging instructions: 609 **Cargo Aircraft Only** Quantity limitation: 30 L Packaging instructions: 611 **Limited Quantities - Passenger Aircraft** Quantity limitation: 0.5 L Packaging instructions: Y609

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

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not applicable.

Other EU regulations

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
2-(2-methoxyethoxy)ethanol	-	-	Repr. Cat. 3; R63	-

Biocidal Products Directive

Uses **Dose**

SECTION 15: Regulatory information

PT 12: Slimicides.	Contact your local Buckman representative for applicable dosage.

Physical state Liquid.

Avoid exposure. After accidental exposure, seek immediate medical attention. Do not induce vomiting.

Product waste and emptied containers should be disposed of in accordance with local waste regulations. Do not reuse container.

Do not allow to enter drains or watercourses.

International regulations

Chemical Weapons Convention List Schedule I Chemicals	Not listed
Chemical Weapons Convention List Schedule II Chemicals	Not listed
Chemical Weapons Convention List Schedule III Chemicals	Not listed

15.2 Chemical Safety Assessment Not applicable.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Anticipated classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 4, H302
Acute Tox. 2, H330
Skin Irrit. 2, H315
Eye Dam. 1, H318
Skin Sens. 1, H317
Repr. 2, H361d
Aquatic Acute 1, H400
Aquatic Chronic 1, H410

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	*Justification*
Acute Tox. 4, H302	*Calculation method*
Acute Tox. 2, H330	*Calculation method*
Skin Irrit. 2, H315	*Calculation method*
Eye Dam. 1, H318	*Calculation method*
Skin Sens. 1, H317	*Calculation method*
Repr. 2, H361d	*Calculation method*
Aquatic Acute 1, H400	*Calculation method*
Aquatic Chronic 1, H410	*Calculation method*

SECTION 16: Other information

Full text of abbreviated H statements

H301 Toxic if swallowed.
H302 Harmful if swallowed.
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.
H361d Suspected of damaging the unborn child.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 1, H330	ACUTE TOXICITY: INHALATION - Category 1
Acute Tox. 2, H330	ACUTE TOXICITY: INHALATION - Category 2
Acute Tox. 3, H301	ACUTE TOXICITY: ORAL - Category 3
Acute Tox. 4, H302	ACUTE TOXICITY: ORAL - Category 4
Aquatic Acute 1, H400	AQUATIC TOXICITY (ACUTE) - Category 1
Aquatic Chronic 1, H410	AQUATIC TOXICITY (CHRONIC) - Category 1
Eye Dam. 1, H318	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 2, H361d	TOXIC TO REPRODUCTION [Unborn child] - Category 2
Skin Corr. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1, H317	SKIN SENSITIZATION - Category 1

Full text of abbreviated R phrases

R63- Possible risk of harm to the unborn child.
R26- Very toxic by inhalation.
R25- Toxic if swallowed.
R23- Toxic by inhalation.
R22- Harmful if swallowed.
R34- Causes burns.
R41- Risk of serious damage to eyes.
R36- Irritating to eyes.
R36/38- Irritating to eyes and skin.
R43- May cause sensitisation by skin contact.
R50- Very toxic to aquatic organisms.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD]

Repr. Cat. 3 - Toxic to reproduction category 3
T+ - Very toxic
T - Toxic
C - Corrosive
Xn - Harmful
Xi - Irritant
N - Dangerous for the environment

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This version supersedes any version issued before this date.

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