

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Revision date 14-Jan-2026

Revision Number 2

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

1.1. Product identifier

Product Code(s) 127202
Safety data sheet number 127202
Product Name BRAD-CHEM 593A

Pure substance/mixture Mixture

Contains 1,3 DIETHYLENE 2 THIOUREA

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

Recommended use Corrosion inhibitor

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone SGS - +32 (0)3 575 55 55 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitisation	Category 1 - (H317)
Specific target organ toxicity — repeated exposure	Category 1 - (H372)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Contains 1,3 DIETHYLENE 2 THIOUREA

**Signal word**

Danger

Hazard statements

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H372 - Causes damage to organs through prolonged or repeated exposure

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

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

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

Additional information

This product requires child resistant fastenings if supplied to the general public. This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
MONOPROPYLENE GLYCOL 57-55-6	> 1%	200-338-0	UK-01-6702687939-4-XXXX	Not Classified	-	-	-
1,3 DIETHYLENE 2 THIOUREA 105-55-5	10 - 30%	203-308-5	-	Aquatic Chronic 3 (H412) Skin Sens. 1B (H317) STOT RE 1 (H372) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Eye Dam. 1 (H318)	-	-	-
1H-BENZOTRIAZOLE	5 - 10%	202-394-1 (613-350-00)	-	Aquatic Chronic 2 (H411)	-	-	-

95-14-7		-X)		Acute Tox. 4 (H302) Eye Irrit. 2 (H319)			
METHYL 1H BENZOTRIAZOLE 29385-43-1	< 1%	249-596-6	-	Acute Tox. 4 (H302) Repr. 2 (H361d) Aquatic Chronic 2 (H411)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Get medical attention if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Rinse mouth thoroughly with water. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

Symptoms	Causes damage to organs through prolonged or repeated exposure. Thyroid.
Eyes	Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated.
Dermal	May cause an allergic skin reaction.

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

Note to doctors	Treat symptomatically. Allergic symptoms may be delayed.
------------------------	--

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media	Dry chemical, CO ₂ , water spray or regular foam. Halons.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Harmful to aquatic life with long lasting effects. Do not allow run-off from fire-fighting to enter drains or water courses. Product is or contains a sensitiser. May cause sensitisation by skin contact.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Nitrogen oxides (NOx).

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Cool containers with flooding quantities of water until well after fire is out.
---	---

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions	Provide adequate ventilation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid contact with skin, eyes and inhalation of vapours. Use personal protection recommended in Section 8. In case of inadequate ventilation wear respiratory protection. Keep people away from and upwind of spill/leak.
Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so.
----------------------------------	---

6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Avoid release to the environment.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
------------------------------------	--

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling	Use personal protection recommended in Section 8. Ensure adequate ventilation. In case of inadequate ventilation wear respiratory protection. Avoid contact with skin, eyes and inhalation of vapours. Keep away from open flames, hot surfaces and sources of ignition. Avoid release to the environment.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using the product. Wash hands and face before breaks and immediately after handling the product. Take off immediately all contaminated clothing and wash it before reuse. Remove contaminated clothing and

protective equipment before entering eating areas. Contaminated work clothing should not be allowed out of the workplace. Ensure that eyewash stations and safety showers are close to the workstation location.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep away from open flames, hot surfaces and sources of ignition. Use appropriate containment to avoid environmental contamination.

7.3. Specific end use(s)

Specific use(s)

See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	United Kingdom
MONOPROPYLENE GLYCOL 57-55-6	TWA: 150 ppm TWA: 470 mg/m ³ (Total vapour and particulates) TWA: 10 mg/m ³ (Particulates)

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
MONOPROPYLENE GLYCOL 57-55-6			168 mg/m ³ [4] [6] 10 mg/m ³ [5] [6]
1,3 DIETHYLENE 2 THIOUREA 105-55-5		2.08 mg/kg [4] [6]	0.14 mg/m ³ [4] [6]
1H-BENZOTRIAZOLE 95-14-7		1.08 mg/kg bw/day [4] [6]	19 mg/m ³ [4] [6]
METHYL 1H BENZOTRIAZOLE 29385-43-1		0.3 mg/kg bw/day [4] [6]	21.2 mg/m ³ [4] [6]

[4]

Systemic health effects.

[5]

Local health effects.

[6]

Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
MONOPROPYLENE GLYCOL 57-55-6			50 mg/m ³ [4] [6] 10 mg/m ³ [5] [6]

Chemical name	Oral	Dermal	Inhalation
1,3 DIETHYLENE 2 THIOUREA 105-55-5	0.02 mg/kg [4] [6]	1.04 mg/kg [4] [6]	0.04 mg/m ³ [4] [6]
1H-BENZOTRIAZOLE 95-14-7	0.54 mg/kg bw/day [4] [6] 0.54 mg/kg bw/day [4] [7]		9.55 mg/m ³ [4] [6]
METHYL 1H BENZOTRIAZOLE 29385-43-1	0.01 mg/kg bw/day [4] [6]	0.01 mg/kg bw/day [4] [6]	0.35 mg/m ³ [4] [6]

[4]	Systemic health effects.
[5]	Local health effects.
[6]	Long term.
[7]	Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
MONOPROPYLENE GLYCOL 57-55-6	260 mg/L	183 mg/L	26 mg/L		
1,3 DIETHYLENE 2 THIOUREA 105-55-5	0.033 mg/l	560 µg/L	0.0033 mg/l		
1H-BENZOTRIAZOLE 95-14-7	0.0194 mg/L	0.158 mg/L	0.0194 mg/L		
METHYL 1H BENZOTRIAZOLE 29385-43-1	0.008 mg/L	0.086 mg/L	0.02 mg/l	0.053 mg/l	

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
MONOPROPYLENE GLYCOL 57-55-6	572 mg/kg sediment dw	57.2 mg/kg sediment dw	20 g/L	50 mg/kg soil dw	
1,3 DIETHYLENE 2 THIOUREA 105-55-5	0.25 mg/kg	0.025 mg/kg	100 µg/L	0.03 mg/kg	0.2 mg/l
1H-BENZOTRIAZOLE 95-14-7	0.2204 mg/kg sediment dw	0.2204 mg/kg sediment dw	0.1 mg/L	0.03 mg/kg soil dw	
METHYL 1H BENZOTRIAZOLE 29385-43-1	0.117 mg/kg dry weight (d.w.)	0.292 mg/kg dry weight (d.w.)	39.4 mg/L	0.0187 mg/kg dry weight (d.w.)	

8.2. Exposure controls**Engineering controls**

Ensure that eyewash stations and safety showers are close to the workstation location.
Ensure adequate ventilation. Avoid release to the environment.

Personal protective equipment**Eye/face protection**

Face protection shield and/or safety goggles. Use eye protection according to EN ISO 16321-1.

Hand protection	Wear suitable gloves. Impervious gloves. Gloves must conform to standard EN 374. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Examples of preferred glove barrier materials include: Polyvinyl chloride (PVC). Ethyl vinyl alcohol laminate ("EVAL"). Polyethylene (PE).
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	In case of inadequate ventilation wear respiratory protection. EN 136/140/141/145/143/149.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using the product. Wash hands and face before breaks and immediately after handling the product. Take off immediately all contaminated clothing and wash it before reuse. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated work clothing should not be allowed out of the workplace. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear liquid
Colour	yellow
Odour	No information available.
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No information available.
Initial boiling point and boiling range	> 100 °C	No information available.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	> 100 °C	No information available.
Autoignition temperature		No information available.
Decomposition temperature		No information available.
pH	9.6	No information available.
pH (as aqueous solution)	8.3	solution (5 %).
Kinematic viscosity		No information available.
Dynamic viscosity		No information available.
Water solubility	Miscible with water	No information available.
Solubility(ies)		No information available.
Partition coefficient		No information available.
Vapour pressure		No information available.
Relative density	1.06	@ 20 °C.
Bulk density		No information available
Liquid Density	No information available	No information available
Relative vapour density		No information available.
Particle characteristics		No information available.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information**SECTION 10: Stability and reactivity**10.1. Reactivity

Reactivity Stable under recommended storage conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Stable under normal conditions.

Hazardous polymerisation Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Nitrogen oxides (NO_x).

SECTION 11: Toxicological information11.1. Information on toxicological effectsInformation on likely routes of exposure**Product Information**

Inhalation Inhalation of vapours in high concentration may cause irritation of respiratory system.

Eye contact Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact May cause an allergic skin reaction.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause gastrointestinal discomfort if consumed in large amounts.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Causes serious eye damage. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure. Thyroid.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
MONOPROPYLENE GLYCOL	> 20000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	317.042 mg/l (Rat) (2h)
1,3 DIETHYLENE 2 THIOUREA	= 316 mg/kg (Rat)	= 2000 mg/kg (Rat)	-
1H-BENZOTRIAZOLE	= 560 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	= 1910 mg/m ³ (Rat) 3 h
METHYL 1H BENZOTRIAZOLE	= 720 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 1.73 mg/L (Rat) 1 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Skin corrosion/irritation**

Based on available data the classification criteria are not met.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Prolonged contact is essentially nonirritating to skin. Repeated contact may cause flaking and softening of skin.

METHYL 1H BENZOTRIAZOLE (29385-43-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Brief contact is essentially non-irritating to skin.

Serious eye damage/eye irritation

Causes burns. Causes serious eye damage.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause slight eye irritation Corneal injury is unlikely Mist may cause eye irritation.

METHYL 1H BENZOTRIAZOLE (29385-43-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause slight eye irritation

Respiratory or skin sensitisation

May cause an allergic skin reaction.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Results
	Human evidence	Dermal	Not a skin sensitiser

METHYL 1H BENZOTRIAZOLE (29385-43-1)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Component Information

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Results
	in vitro	Negative
		Negative Did not show mutagenic effects in animal experiments

1H-BENZOTRIAZOLE (95-14-7)

Method	Species	Results
Ames Test	in vitro	Positive
In vivo Micronucleus Test	Mouse	Negative

METHYL 1H BENZOTRIAZOLE (29385-43-1)

Method	Species	Results
	in vitro	Negative
		Negative Did not show mutagenic effects in animal experiments

Carcinogenicity

Based on available data the classification criteria are not met.

Component Information

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Results
		Did not cause cancer in laboratory animals.

Reproductive toxicity

Based on available data the classification criteria are not met.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Results
		In animal studies, did not interfere with reproduction In animal studies, did not interfere with fertility

METHYL 1H BENZOTRIAZOLE (29385-43-1)

Method	Species	Results
		Suspected of damaging the unborn child.

STOT - single exposure

Based on available data the classification criteria are not met.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Evaluation of available data

					suggests that this material is not an STOT-SE toxicant
--	--	--	--	--	--

METHYL 1H BENZOTRIAZOLE (29385-43-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Evaluation of available data suggests that this material is not an STOT-SE toxicant

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Component Information

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					In rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effect.

METHYL 1H BENZOTRIAZOLE (29385-43-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Based on available data, repeated exposures are not anticipated to cause significant adverse effects

Aspiration hazard

Not applicable.

Other adverse effects

No information available.

SECTION 12: Ecological information**12.1. Toxicity****Ecotoxicity**

Harmful to aquatic life with long lasting effects.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	40613 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Ceriodaphnia dubia	LC50	18340 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	ErC50	19000 mg/L	96 hours	

	<i>Pseudomonas putida</i>	NOEC	> 20000 mg/L	18 hours	
Chronic aquatic toxicity	<i>Ceriodaphnia dubia</i>	NOEC	13020 mg/L	7 days	

1,3 DIETHYLENE 2 THIOUREA (105-55-5)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Crustacea	EC50	56 mg/L	48 hours	
	Algae/aquatic plants	EC50	200 mg/L	72 hours	

1H-BENZOTRIAZOLE (95-14-7)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Crustacea	EC50	15.8 - 20 mg/L	48 hours	
	Algae/aquatic plants	EC50	25 - 180 mg/L	72 hours	
	Fish	LC50	25 mg/L	96 hours	

METHYL 1H BENZOTRIAZOLE (29385-43-1)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	<i>Cyprinodon variegatus</i>	LC50	55 mg/L	96 hours	
Acute toxicity	copepod <i>Acartia tonsa</i>	LC50	55 mg/L	48 hours	
Acute toxicity	<i>Daphnia magna</i>	EC50	8.58 mg/L	48 hours	
Acute toxicity	<i>Daphnia magna</i>	EC50	15.8 mg/L	48 hours	
Acute toxicity	<i>Skeletonema costatum</i>	EC50	53 mg/L	72 hours	
Acute toxicity	<i>Skeletonema costatum</i>	NOEC	30 mg/L	72 hours	
Acute toxicity	<i>Desmodesmus subspicatus</i>	EC10	2.86 mg/L	72 hours	
Acute toxicity	<i>Desmodesmus subspicatus</i>	NOEC	2.5 mg/L	72 hours	
Acute toxicity	<i>Desmodesmus subspicatus</i>	EC10	1.18 mg/L	72 hours	
Acute toxicity	<i>Desmodesmus subspicatus</i>	NOEC	1.2 mg/L	72 hours	
Chronic toxicity	<i>Daphnia magna</i>	NOEC	18.4 mg/L	21 days	
Chronic toxicity	<i>Daphnia magna</i>	EC10	0.4 mg/L	21 days	
Chronic toxicity	<i>Daphnia magna</i>	EC10	0.97 mg/L	21 days	

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,3 DIETHYLENE 2 THIOUREA	-	LC50: =910mg/L (96h, <i>Danio rerio</i>)	-	-
1H-BENZOTRIAZOLE	EC50: =15.4mg/L (96h, freshwater algae)	LC50: =39mg/L (96h, <i>Oncorhynchus mykiss</i>)	-	EC50: =141.6mg/L (48h, water flea)

12.2. Persistence and degradability

Persistence and degradability No information available.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F) or Equivalent.	28 days	Biodegradation 81%	Readily biodegradable
OECD Test No. 306: Biodegradability in Seawater or Equivalent.	64 days	Biodegradation 96%	Readily biodegradable

METHYL 1H BENZOTRIAZOLE (29385-43-1)

Method	Exposure time	Value	Results
	28 days	Biodegradation 4 %	Expected to biodegrade very slowly

12.3. Bioaccumulative potential

Bioaccumulation No information available.

Component Information

Chemical name	Partition coefficient
MONOPROPYLENE GLYCOL	-1.07
1,3 DIETHYLENE 2 THIOUREA	0.57
METHYL 1H BENZOTRIAZOLE	1.71

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
MONOPROPYLENE GLYCOL	The substance is not PBT / vPvB
1,3 DIETHYLENE 2 THIOUREA	The substance is not PBT / vPvB
1H-BENZOTRIAZOLE	The substance is not PBT / vPvB
METHYL 1H BENZOTRIAZOLE	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. Do not discharge onto the ground or into water courses. Avoid release to the environment.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
-----------------------------	---------------

14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Authorisations and/or restrictions on use:**

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
1,3 DIETHYLENE 2 THIOUREA - 105-55-5	3	-
1H-BENZOTRIAZOLE - 95-14-7	3	-
METHYL 1H BENZOTRIAZOLE - 29385-43-1	3	-

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA	- United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL	- Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS	- Japan Existing and New Chemical Substances
IECSC	- China Inventory of Existing Chemical Substances
KECL	- Korean Existing and Evaluated Chemical Substances
PICCS	- Philippines Inventory of Chemicals and Chemical Substances
AIIC	- Australian Inventory of Industrial Chemicals
NZIoC	- New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report Not applicable

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H302 - Harmful if swallowed
 H312 - Harmful in contact with skin
 H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H319 - Causes serious eye irritation
 H332 - Harmful if inhaled
 H335 - May cause respiratory irritation
 H361d - Suspected of damaging the unborn child
 H372 - Causes damage to organs through prolonged or repeated exposure
 H411 - Toxic to aquatic life with long lasting effects
 H412 - Harmful to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		
Revision Note Not applicable			

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 Environmental Protection Agency
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 U.S. National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
 Organisation for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

Prepared By J Spenceley

Revision date 14-Jan-2026

This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
 Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet