

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

Supersedes date 23-Feb-2021

Revision date 12-Jun-2025

Revision Number 2

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

1.1. Product identifier

Product Code(s) 61896

Safety data sheet number 61896

Product Name PRIMAL IW-3311ER

Synonyms PRIMAL IW-3311

Pure substance/mixture Mixture

Contains 2-METHYL-2H-ISOTHIAZOLIN-3-ONE; 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1); ADIPOHYDRAZIDE

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

Recommended use Coatings

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

Skin sensitisation	Category 1 - (H317)
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2.2. Label elements

Contains 2-METHYL-2H-ISOTHIAZOLIN-3-ONE; 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1); ADIPOHYDRAZIDE

**Signal word**

Warning

Hazard statements

H317 - May cause an allergic skin reaction

Precautionary statements

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P272 - Contaminated work clothing should not be allowed out of the workplace

P280 - Wear protective gloves

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P362 + P364 - Take off contaminated clothing and wash it before reuse

P501 - Dispose of contents/ container to an approved waste disposal plant

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

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)
ADIPOHYDRAZIDE 1071-93-8	>= 0.25 - < 1.0 %	213-999-5	-	Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)	-	-	-
AMMONIA ...% 1336-21-6	>= 0.1 - < 0.25 %	215-647-6 (007-001-01-2)	-	Skin Corr. 1B (H314) Aquatic Acute 1 (H400) STOT SE 3 (H335) Eye Dam. 1 (H318)	STOT SE 3 :: C>=5%	1	-
2-METHYL-2H-ISO THIAZOLIN-3-ONE 2682-20-4	>= 0.0025 - < 0.025 %	220-239-6 (613-326-00-9)	-	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400)	Skin Sens. 1A :: C>=0.0015%	10	1

				Aquatic Chronic 1 (H410) (EUH071)			
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	>= 0.0002 - < 0.0015 %	611-341-5 613-167-00-5	-	Skin Corr. 1C (H314) Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400) Skin Sens. 1A (H317) Acute Tox. 2 (H330) Acute Tox. 3 (H301) Acute Tox. 2 (H310) Eye Dam. 1 (H318)	Eye Irrit. 2 :: 0.06%<=C<0.6 % Skin Corr. 1C :: C>=0.6% Skin Irrit. 2 :: 0.06%<=C<0.6 % Skin Sens. 1A :: C>=0.0015% Eye Dam. 1 :: C>=0.6%	100	100

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

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

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

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. Get medical attention if symptoms occur.
Skin contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if symptoms occur.
Ingestion	Rinse mouth thoroughly with water. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

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

Dermal	May cause an allergic skin reaction.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
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SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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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**

When heated and in case of fire, toxic vapours/gases may be formed. Material can splatter above 100C/212F. Dried product is capable of burning.

Hazardous combustion products

Carbon oxides. acrylic monomers.

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. Use personal protection equipment.

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

Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes and inhalation of vapours. Keep people away from and upwind of spill/leak. In case of spills, beware of slippery floors and surfaces.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions**Environmental precautions**

See Section 12 for additional Ecological Information.

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. Pick up and transfer to properly labelled containers.

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**

Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes and inhalation of vapours. Wash skin thoroughly after handling.

General hygiene considerations

Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep from freezing. Stir well before use. Keep at temperatures between 1 and 49 °C.

Other data: Monomer vapors can be evolved when material is heated during processing operations. See SECTION 8, for types of ventilation required.

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

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

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
ADIPOHYDRAZIDE 1071-93-8			17.5 mg/m ³ [4] [6]
2-METHYL-2H-ISOTHIAZOLIN-3-ONE 2682-20-4			0.021 mg/m ³ [5] [6] 0.043 mg/m ³ [5] [7]
5-CHLORO-2-METHYL-4-ISOTHIAZO LIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9			0.02 mg/m ³ [5] [6] 0.04 mg/m ³ [5] [7]

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

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
2-METHYL-2H-ISOTHIAZOLIN-3-ONE 2682-20-4	0.027 mg/kg bw/day [4] [6] 0.053 mg/kg bw/day [4] [7]		0.021 mg/m ³ [5] [6] 0.043 mg/m ³ [5] [7]
5-CHLORO-2-METHYL-4-ISOTHIAZO LIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	0.09 mg/kg bw/day [4] [6] 0.11 mg/kg bw/day [4] [7]		0.02 mg/m ³ [5] [6] 0.04 mg/m ³ [5] [7]

[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
ADIPOHYDRAZIDE 1071-93-8	62 µg/L	92 µg/L	6.2 µg/L		
2-METHYL-2H-ISOTHIAZOLIN-3-ONE 2682-20-4	3.39 µg/L	3.39 µg/L	3.39 µg/L	3.39 µg/L	
5-CHLORO-2-METHYL-4-ISO SOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H -ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	0,00339 mg/l	0,00339 mg/l	0,00339 mg/l	3.39 µg/L	

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
ADIPOHYDRAZIDE 1071-93-8	0.241 mg/kg sediment dw	0.0241 mg/kg sediment dw	1000 mg/L	0.0118 mg/kg soil dw	
2-METHYL-2H-ISOTHIAZOLIN-3-ONE 2682-20-4			0.23 mg/L	0.0471 mg/kg soil dw	
5-CHLORO-2-METHYL-4-ISO SOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H -ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	0.027 mg/kg sediment dw	0.027 mg/kg sediment dw	0.23 mg/L	0.01 mg/kg soil dw	

8.2. Exposure controls**Engineering controls**

No information available.

Personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection

Wear suitable gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
	Wear protective Neoprene™ gloves		

Skin and body protection

Wear appropriate clothing to prevent reasonably probable skin contact.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	white Milky
Odour	Ammonia.
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	0 °C	Water.
Initial boiling point and boiling range	100 °C	@ 760 mmHg. Water.
Flammability		The product is non-combustible.
Flammability Limit in Air		Not applicable.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point		Does not flash.
Autoignition temperature		Not applicable.
Decomposition temperature		Not determined.
pH	7.3 - 7.8	
pH (as aqueous solution)		No information available.
Kinematic viscosity		Not determined.
Dynamic viscosity	10 - 500 mPa s	
Water solubility	partially miscible	
Solubility(ies)		No information available.
Partition coefficient		Not determined.
Vapour pressure	17 mmHg	@ 20 °C. Water.
Relative density	1.0 - 1.2	
Bulk density		No information available
Liquid Density	No information available	No information available
Relative vapour density	< 1	Water.
Particle characteristics		No information available.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	Not determined	
Oxidising properties	Not determined	

9.2. Other information

Evaporation rate	< 1 (n-butyl acetate=1) Water
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No information available.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous polymerisation Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. acrylic monomers.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Information on likely routes of exposure****Product Information**

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

Eye contact Not expected to cause eye irritation.

Skin contact Brief contact may cause slight skin irritation with local redness. May cause an allergic skin reaction.

Ingestion May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics**Symptoms****Acute toxicity****Numerical measures of toxicity**

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

Oral LD50 Oral LD50 > 5000 mg/kg
Dermal LD50 Dermal LD50 > 5000 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
ADIPOHYDRAZIDE	-	-	> 5.3 mg/L (Rat) 4 h
AMMONIA ...%	= 350 mg/kg (Rat)	-	-
2-METHYL-2H-ISOTHIAZOLIN-3-ONE	183 - 235 mg/kg (Rat)	= 242 mg/kg (Rabbit)	= 0.11 mg/L (Rat) 4 h
5-CHLORO-2-METHYL-4-ISOT HIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H -ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)	= 66 mg/kg (Rat)	87.12 mg/kg (Rabbit)	= 0.171 mg/l (Rat) (4h)

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

Brief contact may cause slight skin irritation with local redness.

ADIPOHYDRAZIDE (1071-93-8)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Brief contact may cause slight skin irritation with local redness.

AMMONIA ...% (1336-21-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes severe burns Symptoms may include pain, severe local redness and tissue damage.

2-METHYL-2H-ISOTHIAZOLIN-3-ONE (2682-20-4)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes severe burns Symptoms may include pain, severe local redness and tissue damage.

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit	Dermal		4 hours	Corrosive Causes severe burns Symptoms may include pain, severe local redness and tissue damage.

Serious eye damage/eye irritation Not expected to cause eye irritation.

ADIPOHYDRAZIDE (1071-93-8)

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

AMMONIA ...% (1336-21-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye damage May cause permanent damage if eye is not immediately irrigated. Causes eye burns

2-METHYL-2H-ISOTHIAZOLIN-3-ONE (2682-20-4)

Method	Species	Exposure route	Effective dose	Exposure time	Results
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					Causes serious eye damage May cause permanent damage if eye is not immediately irrigated. Causes eye burns
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5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	eye			Corrosive Causes serious eye damage May cause permanent damage if eye is not immediately irrigated. Causes eye burns

Respiratory or skin sensitisation May cause an allergic skin reaction.

ADIPOHYDRAZIDE (1071-93-8)

Method	Species	Exposure route	Results
			May cause an allergic skin reaction

2-METHYL-2H-ISOTHIAZOLIN-3-ONE (2682-20-4)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	May cause an allergic skin reaction

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	May cause an allergic skin reaction
	Mouse		Sensitising

Germ cell mutagenicity No information available.

Component Information

ADIPOHYDRAZIDE (1071-93-8)

Method	Species	Results
	Ames Test	Negative

AMMONIA ...% (1336-21-6)

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

2-METHYL-2H-ISOTHIAZOLIN-3-ONE (2682-20-4)

Method	Species	Results
		Did not show mutagenic effects in animal experiments

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6]

(3:1) (55965-84-9)

Method	Species	Results
OECD 471	Ames Test	Ambiguous
	in vitro	Positive
OECD 476	in vivo	Positive
OECD 482	in vitro	Negative
OECD 474	Mouse	Negative
OECD 475	Mouse	Negative
OECD 477		Negative
OECD 486	Rat	Negative
	Rat	Negative

Carcinogenicity

No information available.

Component Information

AMMONIA ...% (1336-21-6)

Method	Species	Results
		Did not cause cancer in laboratory animals.

2-METHYL-2H-ISOTHIAZOLIN-3-ONE (2682-20-4)

Method	Species	Results
		Did not cause cancer in laboratory animals.

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6]
(3:1) (55965-84-9)

Method	Species	Results
OECD 453	Rat	Did not cause cancer in laboratory animals.

Reproductive toxicity

No information available.

2-METHYL-2H-ISOTHIAZOLIN-3-ONE (2682-20-4)

Method	Species	Results
		For similar material(s): In animal studies, did not interfere with reproduction

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6]
(3:1) (55965-84-9)

Method	Species	Results
OECD 416	Rat	NOAEL P 30 ppm NOAEL F1 300 ppm NOAEL F2 300 ppm

STOT - single exposure

No information available.

ADIPOHYDRAZIDE (1071-93-8)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause irritation to the mucous membranes and

					upper respiratory tract.
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AMMONIA ...% (1336-21-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
		Inhalation			May cause respiratory irritation

2-METHYL-2H-ISOTHIAZOLIN-3-ONE (2682-20-4)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Corrosive Upper respiratory tract irritation or corrosivity may be expected.

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

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

No information available.

Component Information

ADIPOHYDRAZIDE (1071-93-8)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					In animals, effects have been reported on the following organs: thymus Liver Blood

2-METHYL-2H-ISOTHIAZOLIN-3-ONE (2682-20-4)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Based on available data, a STOT-RE classification is not warranted.

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD 408	Rat	Oral	16.3 mg/kg	90 days	NOAEL
OECD 413	Rat	Inhalation	0.34 mg/m ³	90 days	NOAEL
	Rat	Dermal	2.625 mg/kg	90 days	NOAEL

Aspiration hazard

No information available.

Other adverse effects

No information available.

SECTION 12: Ecological information

12.1. Toxicity**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

ADIPOHYDRAZIDE (1071-93-8)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
Acute toxicity	Cyprinus carpio	LC50	> 100 mg/L	96 hours	
Acute toxicity	Daphnia magna	EC50	> 100 mg/L	48 hours	
Acute toxicity	Pseudokirchneriella subcapitata	EC50	9.19 mg/L	72 hours	
OECD Test No. 209: Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)	activated sludge	EC50	> 1000 mg/L	3 hours	

AMMONIA ...% (1336-21-6)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
Acute toxicity	Lepomis macrochirus	LC50	0.87 mg/L	96 hours	
Acute toxicity	Pimephales promelas	LC50	1.2 mg/L	96 hours	
Acute toxicity	Daphnia magna	EC50	0.66 mg/L	48 hours	

2-METHYL-2H-ISOTHIAZOLIN-3-ONE (2682-20-4)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	4.77 mg/L	96 hours	
Acute toxicity	Daphnia magna	LC50	0.93 - 1.9 mg/L	48 hours	
Acute toxicity	Skeletonema costatum	ErC50	0.0695 mg/L	24 hours	
Acute toxicity	Skeletonema costatum	EC10	0.024 mg/L	24 hours	
Chronic toxicity	Pimephales promelas	NOEC	2.1 mg/L	33 days	
Chronic toxicity	Daphnia magna	NOEC	0.04 mg/L	21 days	

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	0.22 mg/L	96 hours	
OECD Test No. 210: Fish, Early-Life Stage Toxicity Test	Oncorhynchus mykiss (rainbow trout)	NOEC	0.098 mg/L	28 days	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	0.12 mg/L	48 hours	
OECD Test No. 211: Daphnia magna Reproduction Test	Daphnia magna	NOEC	0.0036 mg/L	21 days	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth	Skeletonema costatum	NOEC	0.00064 mg/L	48 hours	

Inhibition Test					
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Skeletonema costatum	EC50	0.0052 mg/L	72 hours	
OECD Test No. 209: Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)	activated sludge	EC20	0.97 mg/L	3 hours	

12.2. Persistence and degradability

Persistence and degradability No information available.

ADIPOHYDRAZIDE (1071-93-8)

Method	Exposure time	Value	Results
OECD Test No. 301E: Ready Biodegradability: Modified OECD Screening Test (TG 301 E) or Equivalent.	28 days	Biodegradation 62.1 %	Readily biodegradable

AMMONIA ...% (1336-21-6)

Method	Exposure time	Value	Results
			Biodegradation may occur under aerobic conditions (in the presence of oxygen).

2-METHYL-2H-ISOTHIAZOLIN-3-ONE (2682-20-4)

Method	Exposure time	Value	Results
	48 days	Biodegradation 98 %	Readily biodegradable

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Exposure time	Value	Results
OECD Test No. 302B: Inherent Biodegradability: Zahn-Wellens/ EVPA Test	10 days	Biodegradation < 50 %	Rapidly biodegradable

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
ADIPOHYDRAZIDE	-2.7
2-METHYL-2H-ISOTHIAZOLIN-3-ONE	-0.75
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)	>-0.71 - 0.75

12.4. Mobility in soil

Mobility in soil partially miscible.

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
ADIPOHYDRAZIDE	The substance is not PBT / vPvB PBT assessment does not apply
2-METHYL-2H-ISOTHIAZOLIN-3-ONE	The substance is not PBT / vPvB
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)	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	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	Not regulated
14.2	
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
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	No
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	No
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 No
 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).

Product restricted per REACH Annex XVII: 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)

Chemical name	The Biocidal Products Regulations 2001 (as amended)
2-METHYL-2H-ISOTHIAZOLIN-3-ONE - 2682-20-4	Product-type 6: Preservatives for products during storage Product-type 11: Preservatives for liquid-cooling and processing systems Product-type 12: Slimicides Product-type 13: Working or cutting fluid preservatives
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) - 55965-84-9	Product-type 2: Disinfectants and algicides not intended for direct application to humans or animals Product-type 4: Food and feed area Product-type 6: Preservatives for products during storage Product-type 11: Preservatives for liquid-cooling and processing systems Product-type 12: Slimicides Product-type 13: Working or cutting fluid preservatives

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

Not applicable

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

Chemical name	Poisons and Explosive Precursors
AMMONIA ...%	Poison, Reportable 10 % w/w

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 No Chemical Safety Assessment has been carried out for this substance/mixture

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**

EUH071 - Corrosive to the respiratory tract
 H301 - Toxic if swallowed
 H310 - Fatal in contact with skin
 H311 - Toxic in contact with skin
 H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H330 - Fatal if inhaled
 H335 - May cause respiratory irritation
 H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects
 H411 - Toxic 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 **SDS sections updated 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16**

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

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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