FuelClear™ M68 Fuel Biocide

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Version: 2.4
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Fuelcare Limited encourages and expects you to read and understand the entire MSDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name: FuelClear™ M68 Fuel Biocide

1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses: Biocidal product.

1.3 Details of the supplier of the safety data sheet

COMPANY IDENTIFICATION

Fuelcare Limited
Stadium Point
Shrewsbury
SY2 6NE
UNITED KINGDOM

Customer Information Number: +44 (0)1743 360784
Customer Information Email: info@fuelcare.com

1.4 EMERGENCY TELEPHONE NUMBER

In Europe, Middle East, Africa and Asia Pacific 24 hour / 7 day emergency response for our products is provided by the NCEC CARECHEM 24 global network.

Country information	Emergency telephone number	Location
Europe, Middle East, Africa (all countries, English Language)	+44 1865 407333	London, UK
Asia Pacific (all countries, English Language)	+65 3165 2217	Singapore

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567):

Skin corrosion - Sub-category 1C - H314: Causes severe skin burns and eye damage.
Serious eye damage - Category 1 - H318: Causes serious eye damage.
Skin sensitisation - Category 1 - H317: May cause an allergic skin reaction.
Short-term (acute) aquatic hazard - Category 1 - H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard - Category 1 - H410: Very toxic to aquatic life with long lasting effects.
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567):

Hazard pictograms

Signal word: DANGER

Hazard statements

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P261	Avoid breathing mist or vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/hearing protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 +P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTRE/doctor.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Supplemental Hazard Statement

EUH071 Corrosive to the respiratory tract.

Hazardous components which must be listed on the label

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

2.3 Other hazards

PBT and vPvB assessment:
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Components

CAS-No. / EC-No. / Index-No.	Chemical Name	Classification:	Concentration (w/w)
CASRN 55965-84-9 **Index-No.** 613-167-00-5	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Acute Tox. - 3 - H301 Acute Tox. - 2 - H330 Acute Tox. - 2 - H310 Skin Corr. - 1C - H314 Eye Dam. - 1 - H318 Skin Sens. - 1A - H317 Aquatic Acute - 1 - H400 Aquatic Chronic - 1 - H410 EUH071	>= 1.0 - < 2.5 %
		M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100	

For explanation of abbreviations see section 16.

Specific Concentration limits (Regulation EC) No 1272/2008)

CAS-No. / EC-No.	Chemical Name	Classification	Concentration
CASRN 55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Skin Corr.1C; H314 Skin Irrit.2; H315 Eye Irrit.2; H319 Skin Sens.1A; H317 Eye Dam.1; H318	>= 0.6 % 0.06 - < 0.6 % 0.06 - < 0.6 % >= 0.0015 % >= 0.6 %

For explanation of abbreviations see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General Advice: Consult a physician. Move out of dangerous area. Do not leave victim unattended. Show this safety data sheet to the doctor in attendance.

Protection of First Aiders: No action shall be taken involving any personal risk or without suitable training.

Inhalation: Move to fresh air. Give artificial respiration if breathing has stopped. If symptoms persist, call a physician.

Skin contact: IMMEDIATELY get under a safety shower. Remove contaminated clothing. Wash off with soap and water. Immediate medical attention is required. Wash contaminated clothing before re- use. Do not take clothing home to be laundered. Discard contaminated shoes, belts, and other articles made of leather.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Ingestion: Do NOT induce vomiting. Drink 1 or 2 glasses of water. IMMEDIATELY see a physician. Never give anything by mouth to an unconscious person.

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

May cause an allergic skin reaction. Causes serious eye damage. Corrosive to the respiratory tract. Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: MATERIAL IS SEVERELY IRRITATING. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: High volume water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: No data available.

Hazardous combustion products: Combustion generates toxic fumes of the following: carbon dioxide (CO2), carbon monoxide, nitrogen oxides (NOx), metal oxides, sulphur oxides, halogenated compounds.

5.3 Advice for firefighters

Special protective equipment for firefighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire Fighting Procedures: Isolate the area immediately for at least 100 metres in all directions. Cool containers/tanks with water spray. Minimise exposure. Do not breathe fumes. Contain run-off.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Wear respiratory protection. MATERIAL IS CORROSIVE. Protective clothing, including chemical splash goggles, nitrile or butyl rubber full length gloves, rubber apron, or clothing made of nitrile or butyl rubber, and rubber overshoes must be worn during spill clean-ups and deactivation of this material. If exposed to material during clean-up operations, IMMEDIATELY remove all contaminated clothing and wash exposed skin areas with soap and water. See SECTION 4, First Aid Measures, for further information.

6.2 Environmental precautions: Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up: WARNING: KEEP SPILLS AND CLEAN-UP RESIDUALS OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER. Adsorb the spill with spill pillows or inert solids such as clay or vermiculite, and transfer contaminated materials to suitable containers for disposal. Deactivate spill area with freshly prepared solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water. Apply solution to the spill area at a ratio of 10 volumes deactivation solution per estimated volume of residual spill to deactivate any residual active ingredient. Let stand for 30 minutes. Flush the spill area with copious amounts of water to chemical sewer (if in accordance with local procedures, permits and regulations). DO NOT add deactivation solution to the waste pail to deactivate the adsorbed material. See Section 13, "Disposal Considerations", for information regarding the disposal of contained materials.

6.4 Reference to other sections: For personal protection see section 8. For disposal considerations see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling: This material is corrosive. For personal protection see section 8. Do not handle material near food, feed or drinking water. General industrial hygiene practice. When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a cool, well-ventilated place. The product as supplied may evolve gas (largely carbon dioxide) slowly. Keep this product in the original container when not in use. Do not store this material in containers made of the following: steel. Do not store this material near food, feed or fertilisers. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all MSDS and label warnings even after container is emptied. Expiration date based only on retention of >95% actives during storage at 20°C - 25°C (68°F - 77°F).

Recommended Storage temperature: 1 - 55 °C

7.3 Specific end use(s): No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Personal protective equipment

Eye/face protection: Eye protection: Tightly fitting safety goggles.

Hand Protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber – IIR Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Neoprene Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride - PVC NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also consider all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Skin protection: Wear as appropriate: chemical resistant apron, complete suit protecting against chemicals.

Respiratory protection: Use appropriate respiratory protection if there is a risk of exceeding any exposure limits. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Filter Type: Combined particulates and organic vapour type (A-P)

Protective Measures: Personal protective equipment comprising suitable protective gloves, safety goggles and protective clothing Facilities storing or utilising this material should be equipped with an eyewash facility and a safety shower.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Liquid

Colour	Colourless to light yellow clear
Odour	Aromatic
Odour Threshold	No data available
pH	4.4
Freezing point	<-20°C
Boiling point/boiling range	229.00 °C (1,013 hPa) Solvent
Flash point	138.00 °C *PENSKY MARTENS CLOSED CUP*
Flammability (solid, gas)	Not Applicable
Lower explosion limit / Lower flammability limit	No data available
Upper explosion limit / Upper flammability limit	No data available
Vapour Pressure	0.08 hPa solvent-like
Density	1.04 g/cm^3 at 20 °C
Relative Vapour Density (air = 1)	0.6500
Relative Density (water = 1)	1.044 at 25 °C
Water solubility	completely soluble
Solubility in solvents	No data available
Partition coefficient: n- octanol/water	log Pow: ca. -0.486 - 0.401
Ignition temperature	No data available
Decomposition temperature	No data available
Dynamic Viscosity	97.800 mPa.s at 25 °C
Kinematic Viscosity	No data available

9.2 Other information

Molecular weight	No data available
Explosive properties	No data available
Oxidising properties	No data available
Self-ignition	No data available
Evaporation Rate (Butyl Acetate = 1)	<1.00
Surface Tension	No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: No data available.

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: Product will not undergo polymerization.

10.4 Conditions to avoid: No data available

10.5 Incompatible materials: Avoid contact with the following: oxidising agents, amines, reducing agents, mercaptan.

10.6 Hazardous decomposition products: Nitrogen oxides (NOx), sulphur oxides, hydrogen chloride.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: Not classified based on available information.

Product

Acute oral toxicity

LD50, Rat, female, 3,723 mg/kg

LD50, Rat, male, 3,600 mg/kg

Acute dermal toxicity

LD50, Rabbit, female, > 3,600 mg/kg

LD50, Rabbit, male, 3,500 mg/kg

Acute inhalation toxicity

Assessment: Corrosive to the respiratory tract.

Acute toxicity estimate: > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: Calculation method

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Acute inhalation toxicity

LC50 (Rat), 4 Hour, dust/mist, 0.33 mg/l

Assessment: Corrosive to the respiratory tract.

Acute oral toxicity

LD50 (Rat): 64 mg/kg

Acute dermal toxicity

LD50 (Rabbit): 87.12 mg/kg

Skin corrosion/irritation: Causes severe burns.

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Result: Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days.

Remarks:

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Serious eye damage/eye irritation: Causes serious eye damage.

Product

Species: Rabbit

Result: Irreversible effects on the eye

Remarks:

In eye damage/eye irritation tests conducted in compliance with GLP standards the product caused effects which were not reversible within 21 days. Based on these observations the product is considered as causing serious damage to eyes.

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Remarks:

Risk of serious damage to eyes.

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Product

Exposure routes: Skin contact

Result: Causes sensitisation

Exposure routes: Inhalation

Remarks:

For respiratory sensitisation: no relevant data found.

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Test type: Maximisation test

Exposure routes: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: May cause sensitisation by skin contact.

GLP: Yes

Test Type: Local lymph node assay (LLNA)

Exposure routes: Skin contact

Species: Mouse

Method: OECD Test Guideline 429

Result: The product is a skin sensitiser, sub-category 1A.

GLP: Yes

Germ cell mutagenicity: Not classified based on available information.

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Germ cell mutagenicity assessment: Animal testing did not show any mutagenic effects.

Carcinogenicity: Not classified based on available information.

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Carcinogenicity assessment: Not classifiable as a human carcinogen.

Reproductive toxicity: Not classified based on available information.

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Reproductive toxicity assessment: No toxicity to reproduction.

STOT - single exposure: Corrosive to the respiratory tract.

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Assessment: Material is corrosive. Upper respiratory tract irritation or corrosivity may be expected.

Aspiration toxicity: Not classified based on available information.

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

No aspiration toxicity classification.

Further information

Product

No data available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Toxicity to fish

LC50, Oncorhynchus mykiss (rainbow trout), flow-through test, 96 Hour, 0.19 mg/l, OECD Test Guideline 203.

Toxicity to daphnia and other aquatic invertebrates

LC50, Daphnia magna (Water flea), flow-through test, 48 Hour, 0.16 mg/l, OECD Test Guideline 202.

Toxicity to algae/aquatic plants

EC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, 0.027 mg/l, OECD Test Guideline 201.

NOEC, Skeletonema costatum (marine diatom), static test, 72 Hour, Growth rate, 0.0014 mg/l

EC50, Skeletonema costatum (marine diatom), 72 Hour, 0.0063 mg/l, OECD Test Guideline 201

M-Factor (Acute aquatic toxicity)

100

Chronic toxicity to fish

NOEC, Rainbow trout (Oncorhynchus mykiss), flow-through, 14 d, 0.05 mg/l

NOEC, Pimephales promelas (fathead minnow), flow-through test, 36 d, 0.02 mg/l

Chronic toxicity to daphnia and other aquatic invertebrates

NOEC, Daphnia magna, flow-through test, 21 d, 0.1 mg/l

M-Factor (Chronic aquatic toxicity)

100

12.2 Persistence and degradability

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Biodegradability

Result: Biodegradation (aquatic metabolism):5-Chloro-2-methyl-4-isothiazolin-3-one (CMIT): t ½ anaerobic = 0.2 day. t½ aerobic = 0.38 – 1.3 day2-Methyl-4-isothiazolin-3-one(MIT): t ½ aerobic = 0.38 – 1.4 day
Remarks: Considered rapidly degradable in the environment.

Biodegradation: < 50 %
Exposure time: 10 d

Result: Biodegradable
Biodegradation: 62 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Biodegradation: 98 %
Exposure time: 48 d
Method: Simulation study
Test substance: CAS 2682-20-4 (2-methylisothiazol-3(2H)-one)
Remarks: Considered rapidly degradable in the environment.

Result: Not readily biodegradable.
Biodegradation: 50 %
Exposure time: 29 d
Method: OECD Test Guideline 301B
Test substance: CAS 2682-20-4 (2-methylisothiazol-3(2H)-one)
GLP: Yes

Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
Test substance: CAS 2682-20-4 (2-methylisothiazol-3(2H)-one)
GLP: Yes

Test substance: CAS 26172-55-4 (5-chloro-2-methyl-2H-isothiazol-3-one)
Remarks: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Test Type: aerobic
Concentration: 6 mg/l
Result: Readily biodegradable.

Biodegradation: 98 %

Exposure time: 2 d

Method: OECD Test Guideline 302B

Test substance: CAS 26172-55-4 (5-chloro-2-methyl-2H-isothiazol-3-one)

Remarks: 10-day Window: Not applicable

Photodegradation

Degradation (direct photolysis)

Degradation half-life: 0.2 d

Degradation (indirect photolysis)

Degradation half-life: 0.38 - 1.3 d

12.3 Bioaccumulative potential

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Bioaccumulation

Bioaccumulation is unlikely.

Test substance: CAS 2682-20-4 (2-methylisothiazol-3(2H)-one)

Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water

Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

log Pow: -0.486

Method: measured

Remarks: 2-Methyl-4-isothiazolin-3-one (MIT)

log Pow: 0.401

Method: measured

Remarks: 5-Chloro-2-methyl-4-isothiazolin-3-one

12.4 Mobility in soil

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Distribution among environmental compartments

Given its very low Henry's constant, volatilisation from natural bodies of water or moist soil is not expected to be an important fate process.

Koc: 28

Method: estimated

Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

12.5 Results of PBT and vPvB assessment

Product

Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components: reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Assessment: Substance is not persistent, bioaccumulative, and toxic (PBT).. Substance is not very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Product

Endocrine disrupting potential

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological information

Very toxic to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the even of unprofessional handling or disposal.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations.

Contaminated packaging: Empty containers retain product residues. Follow label warnings even after container is emptied. Improper disposal or reuse of this container may be dangerous and illegal. Refer to applicable federal, state and local regulations.

SECTION 14: TRANSPORT INFORMATION

Classification for INLAND WATERWAYS (ADN):

14.1 UN number	UN 3265
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (MIXTURE OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1))
14.3 Transport hazard class(es)	8
14.4 Packing group	III Classification Code: C3 Hazard Identification Number: 80 Labels: 8

14.5 Environmental hazards Environmentally hazardous: yes

Classification for ROAD (ADR):

14.1 UN number	UN 3265
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (MIXTURE OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1))
14.3 Transport hazard class(es)	8
14.4 Packing group	|||
	Classification Code: C3
	Hazard Identification Number: 80
	Labels: 8
	Tunnel restriction code: (E)
14.5 Environmental hazards	Environmentally hazardous: yes

Classification for RAIL (RID):

14.1 UN number	UN 3265
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (MIXTURE OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1))
14.3 Transport hazard class(es)	8
14.4 Packing group	|||
	Classification Code: C3
	Hazard Identification Number: 80
	Labels: 8
14.5 Environmental hazards	Environmentally hazardous: yes

Classification for SEA (IMDG):

14.1 UN number	UN 3265
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (MIXTURE OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1))
14.3 Transport hazard class(es)	8
14.4 Packing group	|||
	Labels: 8
	EmS Code: F – A, S – B
14.5 Environmental hazards	Marine pollutant: yes

Classification for PASSENGER AIR (IATA):

14.1 UN number	UN 3265
14.2 UN proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (MIXTURE OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1))

14.3 Transport hazard class(es) 8

14.4 Packing group |||

Packing instruction (passenger aircraft): 852 : 5.00 L

Labels: 8

14.5 Environmental hazards Environmentally hazardous: yes

Classification for CARGO AIR (IATA):

14.1 UN number UN 3265

14.2 UN proper shipping name Corrosive liquid, acidic, organic, n.o.s. (MIXTURE OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1))

14.3 Transport hazard class(es) 8

14.4 Packing group |||

Packing instruction (cargo aircraft): 856 : 60.00 L

Labels: 8

14.5 Environmental hazards Environmentally hazardous: yes

14.6 Special precautions for user

Hazard and Handling Notes: Slightly corrosive. Environmentally hazardous substance. Keep separated from foodstuffs.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by mode of transport, container volume and may be influenced by regional or country variations in regulations.

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

Not applicable for product as supplied.

SECTION 15: REGULATORY INFORMATION

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17): Conditions of restriction for the following entries should be considered: Number on list 3

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation: Not applicable

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain): Not applicable

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors: Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Not applicable

Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors: Neither banned nor restricted

UK REACH List of substances subject to authorisation (Annex XIV): Not applicable

GB Export and import of hazardous chemicals – Prior Informed Consent (PIC) Regulation: Not applicable

Control of Major Accident Hazards Regulations 2015 (COMAH)

Listed in Regulation: ENVIRONMENTAL HAZARDS

Number in Regulation: E1

Quantity 1: 100 t

Quantity 2: 200 t

Further information

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

15.2 Chemical safety assessment

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

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H301	Toxic if swallowed.
H310	Fatal 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.
H330	Fatal if inhaled.

Full text of other abbreviations

Acute Tox.	Acute toxicity
Aquatic Acute	Short-term (acute) aquatic hazard
Aquatic Chronic	Long-term (chronic) aquatic hazard
Eye Dam.	Serious eye damage
Skin Corr.	Skin corrosion
Skin Sens.	Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM -

American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN – Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx – Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS – Emergency Schedule; ENCS - existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS – Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008

Skin Corr. - 1C - H314 - Calculation method
Eye Dam. - 1 - H318 - Based on product data or assessment
Skin Sens. - 1 - H317 - Calculation method
Aquatic Acute - 1 - H400 - Calculation method
Aquatic Chronic - 1 - H410 - Calculation method

Information Source and References

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