Safety Data Sheet according to (EC) No 1907/2006 as amended

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Sard Oil & Grease Spray

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

1.1. Product identifier
Sard Oil & Grease Spray

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Washing aids

1.3. Details of the supplier of the safety data sheet
Henkel Australia (ABN 82 001 302 996)
135 to 141 Canterbury Road,
Kilsyth. Victoria 3152
Australia: 03 9724 6444
New Zealand: 09 272 6710

1.4. Emergency telephone number
Australia: 1800 638 556, New Zealand: 0800 764 766.
Further information is available at Poison Information Centers.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP):
Eye Irrit. 2
H319 Causes serious eye irritation.
Skin Sens. 1
H317 May cause an allergic skin reaction.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:

Signal word: Warning

Hazard statement:
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statement:
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P261 Avoid breathing spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear eye protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container in accordance with national regulation.

Contains:
2-methylisothiazol-3(2H)-one

2.3. Other hazards
None if used properly.
None if used properly.

SECTION 3: Composition/information on ingredients

3.1. Substances

3.2. Mixtures

Hazardous substances according to CLP (EC) No 1272/2008:

Hazardous substances CAS-No.	EINECS	REACH-Reg No.	Content	Classification
Alcohols, C12-18, ethoxylated 68213-23-0			>= 3- < 10 %	Acute toxicity 4; Oral H302 Serious eye damage 1 H318 Chronic hazards to the aquatic environment 3 H412
Dodecyldimethylamine oxide 1643-20-5	216-700-6		>= 0,25- < 1 %	Skin irritation 2; Dermal H315 Serious eye damage 1 H318 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 2 H411 Acute toxicity 4; Oral H302
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	222-059-3	01-2119949262-37	>= 0,25- < 1 %	Acute toxicity 4; Oral H302 Skin irritation 2 H315 Serious eye damage 1 H318 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 2 H411
2-methylisothiazol-3(2H)-one 2682-20-4	220-239-6	01-2120764690-50	>= 15- < 100 PPM	Chronic hazards to the aquatic environment 1 H410 Skin sensitizer 1A H317 Acute toxicity 2; Inhalation H330 Acute toxicity 3; Oral H301 Acute toxicity 3; Dermal H311 Serious eye damage 1 H318 Acute hazards to the aquatic environment 1 H400 Skin corrosion 1B H314
1,2-Benzisothiazol-3(2H)-one 2634-33-5	220-120-9	01-2120761540-60	>= 1- <= 50 PPM	Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 2 H411 Acute toxicity 4; Oral H302 Skin irritation 2 H315 Skin sensitizer 1 H317 Serious eye damage 1 H318 Acute toxicity 2; Inhalation H330

For full text of the H - Phrases indicated by codes only see Section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:
In case of adverse health effects seek medical advice.

Inhalation:
Move to fresh air. In case of breathing difficulties seek immediate medical advise.

Skin contact:
Rinse with water. Take off all clothing contaminated by the product.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:
Do not induce vomiting, seek medical advice immediately.
Rinse mouth with water, (only if the person is conscious).

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

After inhalation: Irritation of the respiratory tract, coughing. Inhalation of larger amounts may cause laryngospasm with shortness of breath.
After skin contact: Temporary irritation of the skin (redness, swelling, burning).
After eye contact: Moderate to strong irritation of the eyes (redness, swelling, burning, watering eyes).
After ingestion: Ingestion may cause irritation of mouth, throat, digestive tract, diarrhea and vomiting. Vomit may get into the lungs causing damage (aspiration).

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

After inhalation: No special action.
After skin contact: No special action.
After eye contact: No special action.
After ingestion: Do not induce vomiting. Single administration of a non-carbonated beverage (water or tea).
After ingestion: In case of ingestion of larger or unknown quantities administer a defoamer (Dimeticon or Simeticon).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water spray jet (if possible, avoid full jet). Adapt the fire-fighting measures to the environmental conditions. Commercially available extinguishers are suitable for fighting incipient fires. The product itself does not burn.

Extinguishing media which must not be used for safety reasons:
None

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products can be formed by pyrolysis and/or carbon monoxide.

5.3. Advice for firefighters

Use personal protective equipment and self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.
Ensure adequate ventilation.
Danger of slipping on spilled product.
If large amounts are released contact the fire service.

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up
Remove mechanically. Rinse away residue with plenty of water.

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
No special measures required if used properly.

Hygiene measures:
Avoid contact with skin and eyes. Remove soiled or soaked clothing immediately. Wash off any contamination that gets onto the skin with plenty of water, skin care.

Protective equipment only required in case of industrial use or for large packs (not for household packs)

7.2. Conditions for safe storage, including any incompatibilities
Store dry at between +5 and +40°C.
Consider national regulations.

7.3. Specific end use(s)
Washing aids

SECTION 8: Exposure controls/personal protection

Only relevant for professional/industrial use

8.1. Control parameters
Valid for
Great Britain

Contains no components with occupational exposure limit values.

8.2. Exposure controls

Respiratory protection:
Not needed.

Hand protection:
For the contact with product protective gloves made from Spezial-Nitril (material thickness > 0.1 mm, break through time > 480 min class 6) are recommended according to EN 374. In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. We recommend to change single-use protective gloves periodical and a hand care plan in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:
Wear tight fitting goggles.

Skin protection:
Protective clothing against chemicals. Observe manufacturer's instructions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The following data apply to the whole mixture.

a) Appearance	liquid clear colourless
b) Odor	citric
c) Odour threshold	No data available / Not applicable
d) pH (20 °C (68 °F))	9,5 - 10,5
e) Melting point	No data available / Not applicable
f) Initial boiling point and boiling range	No data available / Not applicable
g) Flash point	No flash point up to 100°C. Aqueous preparation.
h) Evaporation rate	No data available / Not applicable
i) Flammability (solid , gas)	No data available / Not applicable
j) Upper / lower flammability or explosive limits	No data available / Not applicable
k) Vapour pressure	No data available / Not applicable
l) Vapor density	No data available / Not applicable
m) Relative density Density ()	1,000 - 1,010 g/cm3
n) Solubility (ies)	soluble in water
o) Partition coefficient: n-octanol/water	No data available / Not applicable
p) Auto-ignition temperature	No data available / Not applicable
q) Decomposition temperature	No data available / Not applicable
r) Viscosity (Brookfield)	< 10 mPa.s
s) Explosive properties	No data available / Not applicable
t) Oxidising properties	No data available / Not applicable

9.2. Other information

Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
None if used for intended purpose.

10.2. Chemical stability
Stable under normal conditions of temperature and pressure.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
No decomposition if used according to specifications.

10.5. Incompatible materials
None if used properly.

10.6. Hazardous decomposition products
No decomposition if used according to specifications.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Alcohols, C12-18, ethoxylated 68213-23-0	LD50	1.700 mg/kg	rat	not specified
Dodecyldimethylamine oxide 1643-20-5	LD50	1.064 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	LD50	> 1.495 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	Acute toxicity estimate (ATE)	1.496 mg/kg		Expert judgement
2-methylisothiazol-3(2H)-one 2682-20-4	LD50	120 mg/kg	rat	EPA OPPTS 870.1100 (Acute Oral Toxicity)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	LD50	490 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
2-methylisothiazol-3(2H)-one 2682-20-4	LD50	242 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
2-methylisothiazol-3(2H)-one 2682-20-4	LC50	0,11 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	LC50	0,4 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Alcohols, C12-18, ethoxylated 68213-23-0	moderately irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Dodecyldimethylamine oxide 1643-20-5	irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-methylisothiazol-3(2H)-one 2682-20-4	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	moderately irritating	4 h	rabbit	EPA OPP 81-5 (Acute Dermal Irritation)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Alcohols, C12-18, ethoxylated 68213-23-0	highly irritating	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Dodecyldimethylamine oxide 1643-20-5	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	corrosive	3 h	rabbit	EPA OPP 81-4 (Acute Eye Irritation)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances **CAS-No.**	**Result**	**Test type**	**Species**	**Method**
Dodecyldimethylamine oxide 1643-20-5	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2-methylisothiazol-3(2H)-one 2682-20-4	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Dodecyldimethylamine oxide 1643-20-5	negative	mammalian cell gene mutation assay	with and without		EU Method B.17 (Mutagenicity
Dodecyldimethylamine oxide 1643-20-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	negative	mammalian cell gene mutation assay	with and without		EU Method B.17 (Mutagenicity
2-methylisothiazol-3(2H)-one 2682-20-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-methylisothiazol-3(2H)-one 2682-20-4	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2-methylisothiazol-3(2H)-one 2682-20-4	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	positive without metabolic activation	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Dodecyldimethylamine oxide 1643-20-5	negative	oral: gavage		mouse	Micronucleus assay
2-methylisothiazol-3(2H)-one 2682-20-4	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2-methylisothiazol-3(2H)-one 2682-20-4	negative	oral: gavage		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	negative	oral: unspecified		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Dodecyldimethylamine oxide 1643-20-5	not carcinogenic	oral: feed	2 y daily	rat	male/female	equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Dodecyldimethylamine oxide 1643-20-5	NOAEL P 100 mg/kg	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	NOAEL P 100 mg/kg	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
2-methylisothiazol-3(2H)-one 2682-20-4	NOAEL P 200 ppm NOAEL F1 200 ppm NOAEL F2 200 ppm	Two generation study	oral: drinking water	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOAEL P 112 mg/kg NOAEL F1 56,6 mg/kg NOAEL F2 56,6 mg/kg	Two generation study	oral: feed	rat	EPA OPPTS 870.3800 (Reproduction and Fertility Effects)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Dodecyldimethylamine oxide 1643-20-5	NOAEL 88 mg/kg	oral: feed	13-14 w daily	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	NOAEL 40 mg/kg	oral: gavage	31 - 56 d daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	NOAEL 88 mg/kg	oral: feed	13 - 14 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
2-methylisothiazol-3(2H)-one 2682-20-4	NOAEL 60 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOAEL 150 mg/kg	oral: gavage	28 days daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOAEL 69 mg/kg	oral: feed	90 days daily	rat	EPA OPP 82-1 (90-Day Oral Toxicity)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C12-18, ethoxylated 68213-23-0	LC50	1,2 mg/l	48 h	Leuciscus idus	DIN 38412-15
Alcohols, C12-18, ethoxylated 68213-23-0	NOEC	0,32 mg/l	28 d	Oncorhynchus mykiss	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Dodecyldimethylamine oxide 1643-20-5	LC50	2,67 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Dodecyldimethylamine oxide 1643-20-5	NOEC	0,42 mg/l	302 d	not specified	EPA OPPTS 850.1400 (Fish Early-life Stage Toxicity Test)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	LC50	10,3 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-methylisothiazol-3(2H)-one 2682-20-4	LC50	4,77 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	LC50	2,15 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOEC	0,21 mg/l	30 d	Oncorhynchus mykiss	OECD Guideline 215 (Fish, Juvenile Growth Test)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C12-18, ethoxylated 68213-23-0	EC50	3 mg/l	24 h	Daphnia magna	not specified
Dodecyldimethylamine oxide 1643-20-5	EC50	10,4 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	EC50	11,1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-methylisothiazol-3(2H)-one 2682-20-4	EC50	0,93 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC50	2,9 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C12-18, ethoxylated 68213-23-0	NOEC	0,24 mg/l			OECD 211 (Daphnia magna, Reproduction Test)
Dodecyldimethylamine oxide 1643-20-5	NOEC	0,7 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

2-methylisothiazol-3(2H)-one 2682-20-4	NOEC	0,04 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOEC	1,2 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C12-18, ethoxylated 68213-23-0	EC50	3,1 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
Dodecyldimethylamine oxide 1643-20-5	NOEC	0,067 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dodecyldimethylamine oxide 1643-20-5	EC50	0,266 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	NOEC	0,067 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	EC50	0,81 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-methylisothiazol-3(2H)-one 2682-20-4	NOEC	0,03 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-methylisothiazol-3(2H)-one 2682-20-4	EC50	0,22 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC50	0,11 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOEC	0,0403 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C12-18, ethoxylated 68213-23-0	EC0	10.000 mg/l	16 h		not specified
Dodecyldimethylamine oxide 1643-20-5	EC 50	190 mg/l	30 min		not specified
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	EC0	145 mg/l	30 min		not specified
2-methylisothiazol-3(2H)-one 2682-20-4	EC 50	41 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC50	23 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Alcohols, C12-18, ethoxylated 68213-23-0	readily biodegradable	aerobic	79 %	30 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Dodecyldimethylamine oxide 1643-20-5	readily biodegradable	no data	90 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	inherently biodegradable	aerobic	> 80 %	28 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	readily biodegradable	aerobic	67,5 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
2-methylisothiazol-3(2H)-one 2682-20-4	inherently biodegradable	aerobic	97 %	48 h	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
2-methylisothiazol-3(2H)-one 2682-20-4	readily biodegradable	aerobic	> 70 %	28 d	OECD Guideline 309 (Aerobic Mineralisation in Surface WaterSimulation Biodegradation Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Rapidly biodegradable	aerobic	80 %	21 d	OECD Guideline 303 A (Simulation TestAerobic Sewage Treatment. A: Activated Sludge Units)

12.3. Bioaccumulative potential

Does not bioaccumulate.

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
1,2-Benzisothiazol-3(2H)-one 2634-33-5	6,62	56 d		not specified	other guideline:

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Dodecyldimethylamine oxide 1643-20-5	0,93		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
N,N-Dimethyltetradecylamine N-oxide 3332-27-2	2,69		not specified
2-methylisothiazol-3(2H)-one 2682-20-4	-0,5		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	0,7	20 °C	EU Method A.8 (Partition Coefficient)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Alcohols, C12-18, ethoxylated 68213-23-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-methylisothiazol-3(2H)-one 2682-20-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

Other adverse effects of this product for the environment are not known to us.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:
Only completely empty containers are to be disposed of as recoverable materials.

SECTION 14: Transport information

14.1. UN number

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.4. Packing group

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

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

not applicable

SECTION 15: Regulatory information

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

National regulations/information (New Zealand):

HSNO Group Standard: HSR002530

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This Safety Data Sheet contains changes from the previous version in Section(s): 1 - 16