SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and
Regulation (EC) No. 1272/2008

Issuing Date 24-Aug-2024 **Revision Date** 24-Aug-2024 **Revision Number** 1

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

1.1. Product identifier

Product Name AMSOIL Interior Detailer – Light Lemon

Product Code(s) IDL

Synonyms None

Pure substance/mixture Mixture

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

Recommended use Interior detail spray cleaner

Uses advised against Use only for intended applications

1.3. Details of the supplier of the safety data sheet

Manufacturer
AMSOIL INC.
One AMSOIL Center
Superior, WI 54880, USA
T: +1 715-392-7101

For further information, please contact

E-mail address compliance@amsoil.com

1.4. Emergency telephone number

Emergency telephone CHEMTREC International: +1 703-741-5970

Emergency telephone - §45 - (EC)1272/2008	
Europe	**112**

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Hazard statements
H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)
P273 - Avoid release to the environment.

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

2.3. Other hazards

Other hazards Harmful to aquatic life.

PBT & vPvB None known

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Quaternium 80 134737-05-6	<5.5	No data available	-	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-	-
Propylene glycol 57-55-6	<0.1	No data available	200-338-0	[C]	-	-	-	-
Orange oil 8028-48-6	<0.1	No data available	232-433-8	No data available	-	-	-	-
2-butoxyethanol 111-76-2	<0.1	No data available	203-905-0 (603-014-00-0)	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 3 (H331)	-	-	-	-
Diethanolamine 111-42-2	<0.001	No data available	203-868-0 (603-071-00-1)	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT RE 2 (H373)	-	-	-	-
1,4-dioxane 123-91-1	<0.001	No data available	204-661-8 (603-024-00-5)	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H335) Carc. 1B (H350) (EUH019) (EUH066)	-	-	-	D

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes

[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring

Note D - Certain substances which are susceptible to spontaneous polymerization or decomposition are generally placed on the market in a stabilized form. It is in this form that they are listed in Part 3 of Annex VI to Regulation (EC) No 1272/2008. However, such substances are sometimes placed on the market in a non-stabilized form. In this case, the supplier who places such a substance on the market must state on the label the name of the substance followed by the words “non-stabilized”.

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

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Propylene glycol 57-55-6	20000	20800	No data available	No data available	No data available
Orange oil 8028-48-6	No data available	5000	No data available	No data available	No data available
2-butoxyethanol 111-76-2	1200 + 470	435	No data available	3 + 2.1749 2.3489	No data available
Diethanolamine 111-42-2	780	13034.07	No data available	No data available	No data available
1,4-dioxane 123-91-1	5170	7600	23	No data available	No data available

+ This value is the harmonised acute toxicity estimate (ATE) listed in CLP Annex VI, Part 3. This harmonised ATE value must be used when calculating the acute toxicity estimate (ATEmix) for classifying a mixture containing the listed substance

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Get medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.

Inhalation Remove person to fresh air and keep comfortable for breathing.

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Skin contact Wash skin with soap and water. Take off contaminated clothing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

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

Symptoms May cause temporary eye irritation. May cause gastrointestinal discomfort if consumed in large amounts. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation in susceptible persons.

Effects of Exposure None.

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

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Containers can burst or explode when heated, due to excessive pressure build-up. Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous combustion products No information available.

5.3. Advice for firefighters

Specific/special fire-fighting measures Fires need to be assessed to determine appropriate protocols and safety measures for firefighting, including establishing safe zones, extinguishing media to be used, firefighter protection, and actions to control or extinguish the fire.

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 protective equipment as required. See section 8 for more information.

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 Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections For additional information see: Section 8: Exposure controls/personal protection; Section 12: Ecological information; Section 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with used product. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Wash thoroughly after handling.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. 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. Do not reuse empty containers. Store away from incompatible materials. See section 10 for more information. Protect from physical damage.

Storage class (TRGS 510) LGK 10.

7.3. Specific end use(s)

Specific use(s). The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Propylene glycol 57-55-6	-	-	-	-	TWA: 150 ppm TWA: 474 mg/m^3 TWA: 10 mg/m^3
2-butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 20 ppm TWA: 98 mg/m^3 STEL 40 ppm STEL 200 mg/m^3 Sk*	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*
Diethanolamine 111-42-2	-	TWA: 0.46 ppm TWA: 2 mg/m^3 STEL 0.92 ppm STEL 4 mg/m^3 Sk* Sh+	TWA: 0.2 ppm TWA: 1 mg/m^3 Sk*	TWA: 10 mg/m^3	TWA: 3 ppm TWA: 15 mg/m^3 Sk*
1,4-dioxane 123-91-1	TWA: 20 ppm TWA: 73 mg/m^3	TWA: 20 ppm TWA: 73 mg/m^3 STEL 40 ppm STEL 146 mg/m^3 Sk*	TWA: 20 ppm TWA: 73 mg/m^3 Sk*	TWA: 20 ppm TWA: 73 mg/m^3	TWA: 20 ppm TWA: 73 mg/m^3

Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
2-butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 100 mg/m^3 Sk* Ceiling: 200 mg/m^3	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 246 mg/m^3 STEL: 50 ppm Sk*	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk* S+	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 250 mg/m^3 Sk*
Diethanolamine 111-42-2	-	TWA: 5 mg/m^3 Ceiling: 10 mg/m^3	TWA: 0.46 ppm TWA: 2 mg/m^3 STEL: 0.92 ppm STEL: 4 mg/m^3 Sk*	TWA: 3 ppm TWA: 5 mg/m^3 STEL: 6 ppm STEL: 30 mg/m^3 Sk*	TWA: 0.46 ppm TWA: 2 mg/m^3 Sk*

1,4-dioxane 123-91-1	TWA: 73 mg/m^3 TWA: 20 ppm	TWA: 70 mg/m^3 Sk* Ceiling: 140 mg/m^3	TWA: 10 ppm TWA: 36 mg/m^3 STEL: 20 ppm STEL: 72 mg/m^3 Sk*	TWA: 20 ppm TWA: 73 mg/m^3	TWA: 10 ppm TWA: 36 mg/m^3 STEL: 40 ppm STEL: 150 mg/m^3 Sk*
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
2-butoxyethanol 111-76-2	TWA: 10 ppm TWA: 49 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 10 ppm TWA: 49 mg/m^3 Sk*	TWA: 10 ppm TWA: 49 mg/m^3 Peak: 20 ppm Peak: 98 mg/m^3 Sk*	TWA: 25 ppm TWA: 120 mg/m^3 Sk*	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*
Diethanolamine 111-42-2	TWA: 3 ppm TWA: 15 mg/m^3	TWA: 0.11 ppm TWA: 0.5 mg/m^3 Sk* Sh+	TWA: 1 mg/m^3 Peak: 1 mg/m^3 Sk* skin sensitizer	TWA: 3 ppm TWA: 15 mg/m^3	-
1,4-dioxane 123-91-1	TWA: 20 ppm TWA: 73 mg/m^3 STEL: 40 ppm STEL: 140 mg/m^3	TWA: 20 ppm TWA: 73 mg/m^3 Sk*	TWA: 10 ppm TWA: 37 mg/m^3 Peak: 20 ppm Peak: 74 mg/m^3 Sk*	TWA: 20 ppm TWA: 73 mg/m^3	TWA: 20 ppm TWA: 73 mg/m^3 Sk*
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Propylene glycol 57-55-6	TWA: 10 mg/m^3 TWA: 150 ppm TWA: 470 mg/m^3 STEL: 1410 mg/m^3 STEL: 30 mg/m^3 STEL: 450 ppm	-	-	TWA: 7 mg/m^3	TWA: 7 mg/m^3
2-butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 20 ppm TWA: 97 mg/m^3	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 10 ppm TWA: 50 mg/m^3 STEL: 20 ppm STEL: 100 mg/m^3 Sk*
Diethanolamine 111-42-2	TWA: 0.2 ppm TWA: 1 mg/m^3 STEL: 0.6 ppm STEL: 3 mg/m^3 Sk*	-	TWA: 1 mg/m^3 Sk*	-	TWA: 3 ppm TWA: 15 mg/m^3 STEL: 6 ppm STEL: 30 mg/m^3 Sk*
1,4-dioxane 123-91-1	TWA: 20 ppm TWA: 73 mg/m^3 STEL: 60 ppm STEL: 219 mg/m^3 Sk*	Sk*	TWA: 20 ppm TWA: 72 mg/m^3 Sk*	TWA: 5.5 ppm TWA: 20 mg/m^3	TWA: 10 ppm TWA: 35 mg/m^3 STEL: 25 ppm STEL: 90 mg/m^3
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Propylene glycol 57-55-6	-	-	-	TWA: 25 ppm TWA: 79 mg/m^3 STEL: 37.5 ppm STEL: 118.5 mg/m^3	TWA: 100 mg/m^3
2-butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 20.4 ppm TWA: 100 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 10 ppm TWA: 50 mg/m^3 STEL: 20 ppm STEL: 75 mg/m^3 Sk*	TWA: 98 mg/m^3 STEL: 200 mg/m^3 Sk*
Diethanolamine 111-42-2	-	-	-	TWA: 3 ppm TWA: 15 mg/m^3 STEL: 6 ppm STEL: 22.5 mg/m^3	TWA: 9 mg/m^3 Sk*
1,4-dioxane 123-91-1	TWA: 73 mg/m^3 TWA: 20 ppm	TWA: 73 mg/m^3 TWA: 20 ppm	TWA: 5.5 ppm TWA: 20 mg/m^3	TWA: 5 ppm TWA: 18 mg/m^3 STEL: 10 ppm STEL: 36 mg/m^3	TWA: 50 mg/m^3

				Sk*	
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
2-butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 20 ppm TWA: 98 mg/m^3 Sk* Ceiling: 246 mg/m^3	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*	TWA: 20 ppm TWA: 98 mg/m^3 STEL: 50 ppm STEL: 245 mg/m^3 Sk*
Diethanolamine 111-42-2	TWA: 1 mg/m^3 Sk*	-	-	TWA: 0.5 mg/m^3 TWA: 0.11 ppm STEL: 0.11 ppm STEL: 0.5 mg/m^3 Sk*	TWA: 0.2 ppm TWA: 1 mg/m^3 Sk*
1,4-dioxane 123-91-1	TWA: 20 ppm TWA: 73 mg/m^3 Sk*	TWA: 20 ppm TWA: 73 mg/m^3 Sk*	TWA: 20 ppm TWA: 73 mg/m^3 Ceiling: 146 mg/m^3	TWA: 20 ppm TWA: 73 mg/m^3 STEL: 146 mg/m^3 STEL: 40 ppm Sk*	TWA: 20 ppm TWA: 73 mg/m^3 Sk*

Chemical name	Sweden	Switzerland	United Kingdom
Propylene glycol 57-55-6	-	-	TWA: 150 ppm TWA: 474 mg/m^3 TWA: 10 mg/m^3 STEL: 450 ppm STEL: 1422 mg/m^3 STEL: 30 mg/m^3
2-butoxyethanol 111-76-2	NGV: 10 ppm NGV: 50 mg/m^3 Bindande KGV: 50 ppm Bindande KGV: 246 mg/m^3 Sk*	TWA: 10 ppm TWA: 49 mg/m^3 STEL: 20 ppm STEL: 98 mg/m^3 Sk*	TWA: 25 ppm TWA: 123 mg/m^3 STEL: 50 ppm STEL: 246 mg/m^3 Sk*
Diethanolamine 111-42-2	NGV: 3 ppm NGV: 15 mg/m^3 Vägledande KGV: 6 ppm Vägledande KGV: 30 mg/m^3 Sk*	TWA: 1 mg/m^3 STEL: 1 mg/m^3 Sk* S+	-
1,4-dioxane 123-91-1	NGV: 10 ppm NGV: 35 mg/m^3 Vägledande KGV: 25 ppm Vägledande KGV: 90 mg/m^3	TWA: 20 ppm TWA: 72 mg/m^3 STEL: 40 ppm STEL: 144 mg/m^3 Sk*	TWA: 20 ppm TWA: 73 mg/m^3 STEL: 60 ppm STEL: 219 mg/m^3 Sk*

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
2-butoxyethanol 111-76-2	-	-	-	-	200 mg/g Creatinine (urine - Butoxyacetic acid end of shift at end of workweek) 0.17 mmol/mmol Creatinine (urine - Butoxyacetic acid end of shift at end of workweek)
Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
2-butoxyethanol 111-76-2	-	-	-	150 mg/g Creatinine (urine - Butoxyacetic acid (after hydrolysis) for long-term	150 mg/g Creatinine (urine - Butoxyacetic acid (after hydrolysis) for long-term

				exposures: at the end of the shift after several shifts) 150 mg/g Creatinine (urine - Butoxyacetic acid (after hydrolysis) end of shift) 150 mg/g Creatinine - BAT (for long-term exposures: at the end of the shift after several shifts) urine	exposures: at the end of the shift after several shifts) 150 mg/g Creatinine (urine - Butoxyacetic acid (after hydrolysis) end of shift)
1,4-dioxane 123-91-1	-	-	-	200 mg/g Creatinine (urine - 2-Hydroxyethoxyacetic acid end of shift) 200 mg/g Creatinine - BAT (end of exposure or end of shift) urine	200 mg/g Creatinine (urine - 2-Hydroxyethoxyacetic acid end of shift)

Chemical name	Hungary	Ireland	Italy MDLPS	Italy AIDII
2-butoxyethanol 111-76-2	-	200 mg/g Creatinine (urine - end of shift)	-	200 mg/g Creatinine - urine (Butoxyacetic acid (with hydrolysis)) - end of shift

Chemical name	Slovenia	Spain	Switzerland	United Kingdom
2-butoxyethanol 111-76-2	150 mg/g Creatinine - urine (Butoxyacetic acid (after hydrolysis)) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays	200 mg/g Creatinine (urine - Butoxyacetic acid (with hydrolysis) end of shift)	150 mg/g creatinine (urine - 2-Butoxyacetic acid (after hydrolysis) end of shift, and after several shifts (for long-term exposures))	240 mmol/mol creatinine - urine (Butoxyacetic acid) - post shift
1,4-dioxane 123-91-1	400 mg/g Creatinine - urine (2-Hydroxyethoxyacetic acid) - at the end of the work shift	-	400 mg/g creatinine (urine - 2-Hydroxy-ethoxyacetic acid end of shift) 378 µmol/mmol creatinine (urine - 2-Hydroxy-ethoxyacetic acid end of shift)	-

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Propylene glycol 57-55-6	-	-	168 mg/m^3 [4] [6] 10 mg/m^3 [5] [6]
2-butoxyethanol 111-76-2	-	125 mg/kg bw/day [4] [6] 89 mg/kg bw/day [4] [7]	98 mg/m^3 [4] [6] 1091 mg/m^3 [4] [7] 246 mg/m^3 [5] [7]
Diethanolamine 111-42-2	-	0.13 mg/kg bw/day [4] [6]	0.75 mg/m^3 [4] [6] 0.5 mg/m^3 [5] [6]

Notes

[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
Propylene glycol 57-55-6	-	-	50 mg/m^3 [4] [6] 10 mg/m^3 [5] [6]
2-butoxyethanol 111-76-2	6.3 mg/kg bw/day [4] [6] 26.7 mg/kg bw/day [4] [7]	89 mg/kg bw/day [4] [6] 89 mg/kg bw/day [4] [7]	59 mg/m^3 [4] [6] 426 mg/m^3 [4] [7] 147 mg/m^3 [5] [7]
Diethanolamine 111-42-2	0.06 mg/kg bw/day [4] [6]	-	0.125 mg/m^3 [4] [6] 0.125 mg/m^3 [5] [6]

Notes
[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
Propylene glycol 57-55-6	260 mg/L	183 mg/L	26 mg/L	-	-
2-butoxyethanol 111-76-2	8.8 mg/L	26.4 mg/L	0.88 mg/L	-	-
Diethanolamine 111-42-2	0.021 mg/L	0.095 mg/L	0.002 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Propylene glycol 57-55-6	572 mg/kg sediment dw	57.2 mg/kg sediment dw	20000 mg/L	50 mg/kg soil dw	-
2-butoxyethanol 111-76-2	34.6 mg/kg sediment dw	3.46 mg/kg sediment dw	463 mg/L	2.33 mg/kg soil dw	0.02 g/kg food
Diethanolamine 111-42-2	0.092 mg/kg sediment dw	0.0092 mg/kg sediment dw	100 mg/L	1.63 mg/kg soil dw	1.04 mg/kg food

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection If there is a risk of contact: Wear safety glasses with side shields (or goggles).

Hand protection If there is a risk of contact: Wear suitable gloves. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves.

Skin and body protection	If there is a risk of contact: Wear suitable protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.
Environmental exposure controls	Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
Physical state	Liquid
Colour	Clear / colourless to pale yellow
Odour	Citrus
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	0 °C	
Initial boiling point and boiling range	100 °C	
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Flash point	> 100	
Autoignition temperature		No data available
Decomposition temperature		No data available
pH	5.5 - 6.5	
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Water solubility	Miscible in water	
Solubility(ies)		No data available
Partition coefficient		No data available
Vapour pressure	32 hPa @ 25 °C	
Relative density	1 @ 25 °C	
Bulk density		No data available
Liquid Density		No data available
Relative vapour density		No data available
Particle characteristics		
Particle Size		No data available
Particle Size Distribution		No data available

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

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

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

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 No information available.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information .

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause temporary eye irritation. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation in susceptible persons.

Acute toxicity
Numerical measures of toxicity
Based on available data, the classification criteria are not met

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Propylene glycol 57-55-6	= 20 g/kg (Rat)	= 20800 mg/kg (Rabbit)	-
Orange oil 8028-48-6	-	> 5000 mg/kg (Rabbit)	-
2-butoxyethanol 111-76-2	= 470 mg/kg (Rat)	= 435 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h = 486 ppm (Rat) 4 h
Diethanolamine 111-42-2	= 780 mg/kg (Rat)	= 11.9 mL/kg (Rabbit)	> 3.35 mg/L (Rat) 4 h
1,4-dioxane 123-91-1	= 5170 mg/kg (Rat)	= 7600 mg/kg (Rabbit)	= 46 mg/L (Rat) 2 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
1,4-dioxane	Carc. 1B

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Due to the viscosity, this product does not present an aspiration hazard.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties Based on available data, the classification criteria are not met

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Propylene glycol 57-55-6	EC50: =19000mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =51600mg/L (96h, Oncorhynchus mykiss) LC50: 41 - 47mL/L (96h, Oncorhynchus mykiss) LC50: =51400mg/L (96h, Pimephales promelas) LC50: =710mg/L (96h, Pimephales promelas)	-	EC50: >1000mg/L (48h, Daphnia magna)
2-butoxyethanol 111-76-2	-	LC50: =1490mg/L (96h, Lepomis macrochirus) LC50: =2950mg/L (96h, Lepomis macrochirus)	-	EC50: >1000mg/L (48h, Daphnia magna)
Diethanolamine 111-42-2	EC50: =7.8mg/L (72h, Desmodesmus subspicatus) EC50: 2.1 - 2.3mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 4460 - 4980mg/L (96h, Pimephales promelas) LC50: 1200 - 1580mg/L (96h, Pimephales promelas) LC50: 600 - 1000mg/L (96h, Lepomis macrochirus)	-	EC50: =55mg/L (48h, Daphnia magna)
1,4-dioxane 123-91-1	-	LC50: >10000mg/L (96h, Lepomis macrochirus) LC50: =9850mg/L (96h, Pimephales promelas) LC50: 10306 - 14742mg/L (96h, Pimephales promelas)	-	EC50: =163mg/L (48h, water flea)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Propylene glycol	-1.07
2-butoxyethanol	0.81
Diethanolamine	-2.46
1,4-dioxane	-0.42

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment Based on available data, the classification criteria are not met.

Chemical name	PBT and vPvB assessment
Propylene glycol 57-55-6	The substance is not PBT / vPvB
Orange oil 8028-48-6	The substance is not PBT / vPvB
2-butoxyethanol 111-76-2	The substance is not PBT / vPvB
Diethanolamine 111-42-2	The substance is not PBT / vPvB
1,4-dioxane 123-91-1	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties Based on available data, the classification criteria are not met.

12.7. Other adverse effects

Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Waste should not be disposed of by releasing to water source, drains, sewers, or the ground. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Waste codes / waste designations according to EWC / AVV According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

IATA Not regulated
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 applicable
14.5 Environmental hazards Not applicable
14.6 Special Precautions for Users
Special Provisions None
Note: None

IMDG Not regulated
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 applicable
14.5 Environmental hazards Not applicable
14.6 Special Precautions for Users

Special Provisions None

14.7 Maritime transport in bulk according to IMO instruments No information available

RID Not regulated
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 applicable
14.5 Environmental hazards Not applicable
14.6 Special Precautions for Users
Special Provisions None

ADR Not regulated
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 applicable
14.5 Environmental hazards Not applicable
14.6 Special Precautions for Users
Special Provisions None

ADN Not regulated
14.1 UN/ID no Not regulated
14.2 EPNN Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not applicable
14.5 Environmental hazard Not applicable
14.6 Special Precautions for Users
Special Provisions None

SECTION 15: Regulatory information

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

National regulations

France
Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Propylene glycol 57-55-6	RG 84
2-butoxyethanol 111-76-2	RG 84
Diethanolamine 111-42-2	RG 49,RG 49bis
1,4-dioxane 123-91-1	RG 84

Germany
Water hazard class (WGK) slightly hazardous to water (WGK 1)
TA Luft (German Air Pollution Control Regulation)

Chemical name	Number	Class
1,4-dioxane	5.2.5	Class I

Netherlands

Carcinogenic, mutagenic and reproductive toxic effects

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
1,4-dioxane	Present	-	-

Switzerland

Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018 Group I
Storage of Hazardous Material SC 10/12
WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20 Class A

European Union

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.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
2-butoxyethanol - 111-76-2	75	-
Diethanolamine - 111-42-2	75	-
1,4-dioxane - 123-91-1	75 28	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Orange oil - 8028-48-6	Plant protection agent

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Orange oil - 8028-48-6	Product-type 19: Repellents and attractants

International Inventories

Contact supplier for inventory compliance status

15.2. Chemical safety assessment

Chemical Safety Report No information available

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
H225 - Highly flammable liquid and vapour
H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H331 - Toxic if inhaled
H335 - May cause respiratory irritation
H350 - May cause cancer
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Legend
SVHC: Substances of Very High Concern for Authorisation:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
STOT: Specific Target Organ Toxicity
ATE: Acute Toxicity Estimate
LC50: 50% Lethal Concentration
LD50: 50% Lethal Dose

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation
SCBA	Self-contained breathing apparatus		

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)
Japan GHS Classification
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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Disclaimer
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End of Safety Data Sheet