

SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

SURFACE SHINE

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

1.1. Product identifier

Product name : SURFACE SHINE
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Surface treatment product
Detergent according to Regulation (EC) No 648/2004

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
✉ +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
✉ +32 14 85 97 38
info@novatech.be

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Aerosol	category 1	H222: Extremely flammable aerosol.
Aerosol	category 1	H229: Pressurised container: May burst if heated.
Skin Sens.	category 1	H317: May cause an allergic skin reaction.
Aquatic Chronic	category 3	H412: Harmful to aquatic life with long lasting effects.

2.2. Label elements



Contains: (R)-p-mentha-1,8-diene; 2-methylisothiazol-3(2H)-one.

Signal word Danger

H-statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

P-statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.

SURFACE SHINE

P280 Wear protective gloves, protective clothing and eye protection/face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water and soap.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

2.3. Other hazards

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No List No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
butane 01-2119474691-32	106-97-8 203-448-7	10% ≤C≤25%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)(21)	Propellant	
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane 01-2119475514-35	921-024-6	C<10%	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(2)(10)	Constituent	
(R)-p-mentha-1,8-diene 01-2119529223-47	5989-27-5 227-813-5	C<1%	Flam. Liq. 3; H226 Skin Sens. 1; H317 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Aquatic Acute 1; H400 Aquatic Chronic 3; H412	(1)(2)(10)	Constituent	
2-methylisothiazol-3(2H)-one	2682-20-4 220-239-6	C<0.1%	Acute Tox. 2; H330 Acute Tox. 3; H311 Acute Tox. 3; H301 Skin Sens. 1A; H317 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071 Skin Sens. 1A; H317: C≥0,0015%, (CLP Annex VI (ATP 13))	(1)(10)	Constituent	M: 10 (Acute, ECHA (registration dossier)) M: 1 (Chronic, ECHA (registration dossier))

(1) For H- and EUH-statements in full: see section 16

(2) Substance with a Community workplace exposure limit

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

(21) 1,3-butadiene <0.1%

Note: numbers 9xx-xxx-x are provisional list numbers assigned by Echa pending an official EC inventory number

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.

After eye contact:

Rinse immediately with (lukewarm) water. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

4.2.1 Acute symptoms

After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Headache. Vomiting. Respiratory difficulties. Mental confusion.

After skin contact:

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

2 / 18

SURFACE SHINE

No effects known.

After eye contact:

No effects known.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher.

Major fire: Adapt extinguishing media to the environment for surrounding fires.

5.1.2 Unsuitable extinguishing media:

Small fire: Quick-acting CO2 extinguisher, Water (water can be used to control jet flame), Foam.

Major fire: Water (water can be used to control jet flame), Foam.

5.2. Special hazards arising from the substance or mixture

Upon combustion: CO and CO2 are formed. Pressurised container: May burst if heated.

5.3. Advice for firefighters

5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.

6.1.1 Protective equipment for non-emergency personnel

See section 8.2

6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See section 8.2

6.2. Environmental precautions

Contain released product. Dam up the liquid spill.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into absorbent material, e.g.: sand, saw dust, kieselguhr. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See section 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe very strict hygiene - avoid contact. Do not discharge the waste into the drain.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Meet the legal requirements. Keep container in a well-ventilated place. Fireproof storeroom. Keep out of direct sunlight.

7.2.2 Keep away from:

Heat sources, ignition sources.

7.2.3 Suitable packaging material:

Aerosol.

7.2.4 Non suitable packaging material:

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

3 / 18

SURFACE SHINE

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

Belgium

Butane, tous isomères: n-butane	Short time value	980 ppm
	Short time value	2370 mg/m ³

Germany

(R)-p-Mentha-1,8-dien (D-Limonen)	Time-weighted average exposure limit 8 h (TRGS 900)	5 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	28 mg/m ³
Butan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	2400 mg/m ³
Kohlenwasserstoffgemische, Verwendung als Lösemittel (Lösemittelkohlenwasserstoffe), additiv-frei: C6-C8 Aliphaten	Time-weighted average exposure limit 8 h (TRGS 900)	700 mg/m ³

UK

Butane	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	600 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1450 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	750 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1810 mg/m ³

USA (TLV-ACGIH)

Butane, isomers	Short time value (TLV - Adopted Value)	1000 ppm
-----------------	--	----------

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

Product name	Test	Number
d-Limonene (Volatile Organic compounds)	NIOSH	2549
d-Limonene	NIOSH	3900
Limonene	NIOSH	1552
n-Butane	OSHA	2010

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 Threshold values

DNEL/DMEL - Workers

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2035 mg/m ³	
	Long-term systemic effects dermal	773 mg/kg bw/day	

(R)-p-mentha-1,8-diene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	66.7 mg/m ³	
	Long-term systemic effects dermal	9.5 mg/kg bw/day	

2-methylisothiazol-3(2H)-one

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	0.021 mg/m ³	
	Acute local effects inhalation	0.043 mg/m ³	

DNEL/DMEL - General population

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	608 mg/m ³	
	Long-term systemic effects dermal	699 mg/kg bw/day	
	Long-term systemic effects oral	699 mg/kg bw/day	

(R)-p-mentha-1,8-diene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	16.6 mg/m ³	
	Long-term systemic effects dermal	4.8 mg/kg bw/day	
	Long-term systemic effects oral	4.8 mg/kg bw/day	

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

4 / 18

SURFACE SHINE

2-methylisothiazol-3(2H)-one

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	0.021 mg/m ³	
	Acute local effects inhalation	0.043 mg/m ³	
	Long-term systemic effects oral	0.027 mg/kg bw/day	
	Acute systemic effects oral	0.053 mg/kg bw/day	

PNEC

(R)-p-mentha-1,8-diene

Compartments	Value	Remark
Fresh water	14 µg/l	
Marine water	1.4 µg/l	
STP	1.8 mg/l	
Fresh water sediment	3.85 mg/kg sediment dw	
Marine water sediment	0.385 mg/kg sediment dw	
Soil	0.763 mg/kg soil dw	
Oral	133 mg/kg food	

2-methylisothiazol-3(2H)-one

Compartments	Value	Remark
Fresh water	3.39 µg/l	
Marine water	3.39 µg/l	
Fresh water (intermittent releases)	3.39 µg/l	
Marine water (intermittent releases)	3.39 µg/l	
STP	0.23 mg/l	
Soil	0.047 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly.

8.2.2 Individual protection measures, such as personal protective equipment

Observe very strict hygiene - avoid contact. Do not eat, drink or smoke during work.

a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

b) Hand protection:

Protective gloves against chemicals (EN 374).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
nitrile rubber	> 480 minutes	0.4 mm	Class 6	

c) Eye protection:

Protective goggles (EN 166).

d) Skin protection:

Protective clothing (EN 14605 or EN 13034). Head/neck protection.

8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Aerosol
Odour	Characteristic odour
Odour threshold	No data available in the literature
Colour	Colourless
Particle size	Not applicable (aerosol)
Explosion limits	0.8 - 10.9 vol % ; Propellant
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)
Dynamic viscosity	Not applicable (aerosol)
Kinematic viscosity	Not applicable (aerosol)
Melting point	Not applicable (aerosol)
Boiling point	No data available in the literature
Relative vapour density	No data available in the literature
Vapour pressure	2100 hPa
Solubility	Water ; insoluble
Relative density	Not applicable (aerosol)
Absolute density	Not applicable (aerosol)

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

5 / 18

SURFACE SHINE

Decomposition temperature	No data available in the literature
Auto-ignition temperature	Not applicable (aerosol)
Flash point	Not applicable (aerosol)
pH	Not applicable (aerosol)

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

May be ignited by sparks.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

Upon combustion: CO and CO₂ are formed.

SECTION 11: Toxicological information

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

11.1.1 Test results

Acute toxicity

SURFACE SHINE

No (test) data on the mixture available

Judgement is based on the relevant ingredients

butane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral						Data waiving	
Dermal						Data waiving	
Inhalation (gases)	LC50		> 800000 ppm	15 minutes	Rat (male / female)	Experimental value of similar product	

As the substance is a gas, inhalation is the most likely route of exposure

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		> 5840 mg/kg bw		Rat	Read-across	
Dermal	LD50		2800 mg/kg bw - 3100 mg/kg bw	24 h	Rat (male / female)	Read-across	
Inhalation (vapours)	LC50		> 25.2 mg/l	4 h	Rat (male / female)	Experimental value	

(R)-p-mentha-1,8-diene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	> 2000 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 5000 mg/kg bw	24 h	Rabbit	Read-across	
Inhalation						Data waiving	

2-methylisothiazol-3(2H)-one

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	EPA OPPTS 870.1100	120 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50	OECD 402	242 mg/kg bw	24 h	Rat (male / female)	Experimental value	
Inhalation (dust)	LC50	OECD 403	0.11 mg/l air	4 h	Rat (male / female)	Experimental value	

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

6 / 18

SURFACE SHINE

Conclusion

Not classified for acute toxicity

Corrosion/irritation

SURFACE SHINE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

butane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye						Data waiving	
Skin						Data waiving	

The liquid form can cause frostbites, typical for all liquefied gases
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405		24; 48; 72 hours	Rabbit	Read-across	Single treatment
Skin	Irritating	Equivalent to OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

(R)-p-mentha-1,8-diene

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment without rinsing
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	
Skin	Irritating; category 2					Annex VI	

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

2-methylisothiazol-3(2H)-one

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage; category 1					Annex VI	
Skin	Corrosive	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	
Not applicable (in vitro test)	Corrosive	OECD 431	3 minutes - 60 minutes	1 hour	Reconstructed human epidermis	Experimental value	
Inhalation	Corrosive to the respiratory tract.					Literature study	

Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

SURFACE SHINE

No (test)data on the mixture available

Classification is based on the relevant ingredients

butane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin						Data waiving	
Inhalation						Data waiving	

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406		24; 48 hours	Guinea pig (male / female)	Read-across	

(R)-p-mentha-1,8-diene

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Dermal (on the ears)	Sensitizing	OECD 429			Mouse (female)	Experimental value	

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

7 / 18

SURFACE SHINE

2-methylisothiazol-3(2H)-one

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 406			Guinea pig (male / female)	Experimental value	

Conclusion

May cause an allergic skin reaction.
Not classified as sensitizing for inhalation

Specific target organ toxicity

SURFACE SHINE

No (test)data on the mixture available
Judgement is based on the relevant ingredients
butane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral								Data waiving
Dermal								Data waiving
Inhalation (gases)	NOAEC systemic effects	OECD 422	21.39 mg/l air		No adverse systemic effects	> 4 weeks (6h / day, 7 days / week)	Rat (male / female)	Experimental value

As the substance is a gas, inhalation is the most likely route of exposure
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Dermal	NOAEL	Equivalent to OECD 453	0.5 ml			52 weeks (3 times / week) - 104 weeks (3 times / week)	Mouse (male / female)	Experimental value
Inhalation (vapours)	NOAEC	Subacute toxicity test	14000 mg/m ³ air		No adverse systemic effects	3 days (8h / day)	Rat (male)	Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	8117 mg/m ³ air	Liver	No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Read-across
Inhalation			STOT SE cat.3					Literature study

(R)-p-mentha-1,8-diene

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 407	825 mg/kg bw/day		No effect	2.5 weeks (5 days / week)	Rat (male)	Experimental value
Oral (stomach tube)	NOAEL	Equivalent to OECD 407	1650 mg/kg bw/day		No effect	2.5 weeks (5 days / week)	Rat (female)	Experimental value

2-methylisothiazol-3(2H)-one

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	OECD 408	19 mg/kg bw/day		No effect	90 day(s)	Rat (male)	Experimental value
Oral (drinking water)	NOAEL	OECD 408	24.6 mg/kg bw/day		No effect	90 day(s)	Rat (female)	Experimental value

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

SURFACE SHINE

No (test)data on the mixture available
Judgement is based on the relevant ingredients
butane

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes	No effect	Experimental value	

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

8 / 18

SURFACE SHINE

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S. typhimurium and E. coli)	No effect	Read-across	
Negative	Equivalent to OECD 473	Rat liver cells	No effect	Read-across	

(R)-p-mentha-1,8-diene

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)		Experimental value	

2-methylisothiazol-3(2H)-one

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster ovary (CHO)		Experimental value	

Mutagenicity (in vivo)

SURFACE SHINE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

butane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (diet))	Drosophila SLRL test (gene mutation)	3 day(s)	Drosophila melanogaster		Experimental value

(R)-p-mentha-1,8-diene

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))		3 h - 26 h	Rat (male)	Kidney	Experimental value

2-methylisothiazol-3(2H)-one

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 474		Mouse (male / female)		Experimental value

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

SURFACE SHINE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

butane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Unknown								Data waiving

(R)-p-mentha-1,8-diene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 451	250 mg/kg bw/day - 500 mg/kg bw/day	103 weeks (5 days / week)	Mouse (male)	No carcinogenic effect		Experimental value
Oral (stomach tube)	NOAEL	Equivalent to OECD 451	500 mg/kg bw/day - 1000 mg/kg bw/day	103 weeks (5 days / week)	Mouse (female)	No carcinogenic effect		Experimental value

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

9 / 18

SURFACE SHINE

2-methylisothiazol-3(2H)-one

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Dermal	Dose level	Carcinogenic toxicity study	400 ppm	130 weeks (3 times / week)	Mouse (male)	No carcinogenic effect		Experimental value
Oral (drinking water)	NOEL	OECD 453	≥ 17.2 mg/kg bw/day	24 month(s)	Rat (male / female)	No carcinogenic effect		Experimental value

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

SURFACE SHINE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

butane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (gases))	NOAEC	OECD 422	21.39 mg/l air	> 4 weeks (6h / day, 7 days / week)	Rat	No effect		Experimental value
Maternal toxicity (Inhalation (gases))	NOAEC	OECD 422	21.39 mg/l air	> 4 weeks (6h / day, 7 days / week)	Rat	No effect		Experimental value
Effects on fertility (Inhalation (gases))	NOAEC	OECD 422	21.39 mg/l air	> 4 weeks (6h / day, 7 days / week)	Rat (male / female)	No effect		Experimental value

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	10560 mg/m³ air	10 days (6h / day)	Mouse	No effect		Read-across
Maternal toxicity	NOAEL	Equivalent to OECD 414	3168 mg/m³ air	10 days (6h / day)	Mouse (female)	No effect		Read-across
Effects on fertility	NOAEL	Equivalent to OECD 416	31680 mg/m³ air	13 weeks (6h / day, 5 days / week)	Rat (male / female)	No effect		Read-across

(R)-p-mentha-1,8-diene

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral)	NOAEL		> 1000 mg/kg bw/day	13 days (1x / day)	Rabbit	No effect		Experimental value
Maternal toxicity (Oral)	NOAEL		250 mg/kg bw/day	13 days (gestation, daily)	Rabbit	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL	Equivalent to OECD 408	500 mg/kg bw/day	13 weeks (5 days / week)	Mouse (male / female)	No effect		Experimental value

2-methylisothiazol-3(2H)-one

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	40 mg/kg bw/day	14 days (gestation, daily)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	20 mg/kg bw/day	14 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL	OECD 416	69 mg/kg bw/day - 93 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

SURFACE SHINE

No (test)data on the mixture available

Chronic effects from short and long-term exposure

SURFACE SHINE

Skin rash/inflammation.

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

10 / 18

SURFACE SHINE

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

SURFACE SHINE

No (test)data on the mixture available

Classification is based on the relevant ingredients

butane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	ECOSAR	24 mg/l	96 h	Pisces		Fresh water	QSAR
Acute toxicity crustacea	LC50	ECOSAR v1.00	14 mg/l	48 h	Daphnia sp.		Fresh water	QSAR
Toxicity algae and other aquatic plants	EC50	ECOSAR v1.00	7.7 mg/l	96 h	Algae		Fresh water	QSAR

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	11.4 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EL50	OECD 202	3 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	30 mg/l - 100 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOELR		2.045 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR
Toxicity aquatic micro-organisms	EL50		35.57 mg/l	48 h	Tetrahymena pyriformis		Fresh water	QSAR; Continuous exposure

(R)-p-mentha-1,8-diene

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	720 µg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	OECD 202	0.307 mg/l	48 h	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	OECD 201	0.32 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
	EC10	OECD 201	0.174 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEC	OECD 212	0.37 mg/l	8 day(s)	Pimephales promelas	Semi-static system	Fresh water	Experimental value; GLP
Long-term toxicity aquatic crustacea	NOEC	OECD 211	80 µg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	EC50	OECD 209	209 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; Nominal concentration

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

SURFACE SHINE

2-methylisothiazol-3(2H)-one

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	4.8 mg/l	96 h	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	LC50	OECD 202	0.93 mg/l	48 h	Daphnia magna	Flow-through system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EbC50	Equivalent to OECD 201	0.063 mg/l	96 h	Pseudokirchneriella subcapitata	Static system		Experimental value; GLP
	NOEC	OECD 201	0.05 mg/l	120 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOEC	OECD 210	2.1 mg/l	33 day(s)	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Lethal
Long-term toxicity aquatic crustacea	NOEC	OECD 211	0.044 mg/l	21 day(s)	Daphnia magna	Flow-through system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	EC50	OECD 209	41 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; Respiration

Conclusion

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

butane

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	1.9 day(s)	5E5 /cm ³	Calculated value

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
			Not applicable (gas)

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	98 %; Oxygen consumption	28 day(s)	Experimental value

(R)-p-mentha-1,8-diene

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	80 %; GLP	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	0.884 h	1.5E6 /cm ³	Calculated value

Biodegradation soil

Method	Value	Duration	Value determination
			Data waiving

2-methylisothiazol-3(2H)-one

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	0 %; Oxygen consumption	28 day(s)	Experimental value

Conclusion

Water

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

SURFACE SHINE

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

butane

Log Kow

Method	Remark	Value	Temperature	Value determination
		2.8	20 °C	Experimental value

SURFACE SHINE

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

(R)-p-mentha-1,8-diene

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.01	864.8 l/kg; Fresh weight		Pisces	QSAR

Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 117		4.38	37 °C	Experimental value

2-methylisothiazol-3(2H)-one

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		5.8 - 48	56 day(s)	Lepomis macrochirus	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		-0.49	25 °C	Experimental value

Conclusion

Contains bioaccumulative component(s)

12.4. Mobility in soil

(R)-p-mentha-1,8-diene

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	3.049 - 3.801	Calculated value

2-methylisothiazol-3(2H)-one

(log) Koc

Parameter	Method	Value	Value determination
log Koc	OECD 106	1.1	Experimental value

Conclusion

Contains component(s) that adsorb(s) into the soil

Contains component(s) with potential for mobility in the soil

12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

12.7. Other adverse effects

SURFACE SHINE

Greenhouse gases

Contains component(s) included in the list of substances which may contribute to the greenhouse effect (IPCC)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

Groundwater

Groundwater pollutant

butane

Greenhouse gases

Included in the list of substances which may contribute to the greenhouse effect (IPCC)

(R)-p-mentha-1,8-diene

Water ecotoxicity pH

pH shift

2-methylisothiazol-3(2H)-one

Groundwater

Groundwater pollutant

Water ecotoxicity pH

pH shift

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

13 / 18

SURFACE SHINE

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

16 05 04* (gases in pressure containers and discarded chemicals: gases in pressure containers (including halons) containing hazardous substances).

20 01 29* (separately collected fractions (except 15 01): detergents containing hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste.

Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Specific treatment. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

UN number	1950
-----------	------

14.2. UN proper shipping name

Proper shipping name	aerosols
----------------------	----------

14.3. Transport hazard class(es)

Hazard identification number	
Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Rail (RID)

14.1. UN number

UN number	1950
-----------	------

14.2. UN proper shipping name

Proper shipping name	aerosols
----------------------	----------

14.3. Transport hazard class(es)

Hazard identification number	23
Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Inland waterways (ADN)

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

14 / 18

SURFACE SHINE

14.1. UN number/ID number	UN number/ID number	1950
14.2. UN proper shipping name	Proper shipping name	aerosols
14.3. Transport hazard class(es)	Class	2
	Classification code	5F
14.4. Packing group	Packing group	
	Labels	2.1
14.5. Environmental hazards	Environmentally hazardous substance mark	no
14.6. Special precautions for user	Special provisions	190
	Special provisions	327
	Special provisions	344
	Special provisions	625
	Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Sea (IMDG/IMSBC)

14.1. UN number	UN number	1950
14.2. UN proper shipping name	Proper shipping name	aerosols
14.3. Transport hazard class(es)	Class	2.1
14.4. Packing group	Packing group	
	Labels	2.1
14.5. Environmental hazards	Marine pollutant	-
	Environmentally hazardous substance mark	no
14.6. Special precautions for user	Special provisions	190
	Special provisions	277
	Special provisions	327
	Special provisions	344
	Special provisions	381
	Special provisions	63
	Special provisions	959
	Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
14.7. Maritime transport in bulk according to IMO instruments	Annex II of MARPOL 73/78	Not applicable

Air (ICAO-TI/IATA-DGR)

14.1. UN number/ID number	UN number/ID number	1950
14.2. UN proper shipping name	Proper shipping name	aerosols, flammable
14.3. Transport hazard class(es)	Class	2.1
14.4. Packing group	Packing group	
	Labels	2.1
14.5. Environmental hazards	Environmentally hazardous substance mark	no
14.6. Special precautions for user	Special provisions	A145
	Special provisions	A167
	Special provisions	A802
Passenger and cargo transport	Limited quantities: maximum net quantity per packaging	30 kg G

SURFACE SHINE

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
22.48 %	
534.7 g/l	

Directive 2012/18/EU (Seveso III)

Threshold values under normal circumstances

Substance or category	Low tier (tonnes)	Top tier (tonnes)	Group	For this substance or mixture the summation rule has to be applied for:
P3b FLAMMABLE AEROSOLS	5000 (net)	50000 (net)	None	Flammability

Ingredients according to Regulation (EC) No 648/2004 and amendments

15-30% aliphatic hydrocarbons, <5% non-ionic surfactants, perfumes, limonene

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane · (R)-p-mentha-1,8-diene	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage"; b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
· butane · hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane · (R)-p-mentha-1,8-diene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: — metallic glitter intended mainly for decoration, — artificial snow and frost, — "whoopie" cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs. 2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: "For professional users only". 3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC. 4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.
· (R)-p-mentha-1,8-diene · 2-methylisothiazol-3(2H)-one	Substances falling within one or more of the following points: (a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008: — carcinogen category 1A, 1B or 2, or germ	Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

16 / 18

SURFACE SHINE

cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation
 — reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation
 — skin sensitiser category 1, 1A or 1B
 — skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2
 — serious eye damage category 1 or eye irritant category 2
 (b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council
 (c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex.
 The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.

National legislation Belgium

SURFACE SHINE

No data available

National legislation The Netherlands

SURFACE SHINE

Waterbezwaarlijkheid	Z (2); Algemene Bepoortelingsmethodiek (ABM)
----------------------	--

National legislation France

SURFACE SHINE

No data available

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Catégorie cancérogène	Hydrocarbures en C6-C12 (ensemble des,vapeurs)
Catégorie mutagène	Hydrocarbures en C6-C12 (ensemble des,vapeurs)

National legislation Germany

SURFACE SHINE

Lagerklasse (TRGS510)	2B: Aerosolpackungen und Feuerzeuge
WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017

butane

TA-Luft	5.2.5
---------	-------

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

TA-Luft	5.2.5
---------	-------

(R)-p-mentha-1,8-diene

TA-Luft	5.2.5/I
TRGS900 - Risiko der Fruchtschädigung	(R)-p-Mentha-1,8-dien (D-Limonen); Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Sensibilisierende Stoffe	(R)-p-Mentha-1,8-dien (D-Limonen); Sh; Hautsensibilisierende Stoffe
Hautresorptive Stoffe	(R)-p-Mentha-1,8-dien (D-Limonen); H; Hautresorptiv

2-methylisothiazol-3(2H)-one

TA-Luft	5.2.5/I
---------	---------

National legislation Austria

SURFACE SHINE

No data available

2-methylisothiazol-3(2H)-one

Gefahr der Sensibilisierung der Haut	5-Chlor-2-methyl-2,3- dihydroisothiazol-3-on und 2- Methyl-2,3-di-hydroisothiazol- 3-on (Gemisch im Verhältnis 3:1); Sh
--------------------------------------	---

National legislation United Kingdom

SURFACE SHINE

No data available

butane

Carcinogen	Butane; Carc
------------	--------------

Other relevant data

SURFACE SHINE

No data available

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

17 / 18

SURFACE SHINE

(R)-p-mentha-1,8-diene

IARC - classification

3; D-limonene

15.2. Chemical safety assessment

No chemical safety assessment is required for a mixture.

SECTION 16: Other information

Full text of any H- and EUH-statements referred to under section 3:

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.
H301 Toxic if swallowed.
H304 May be fatal if swallowed and enters airways.
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.
H336 May cause drowsiness or dizziness.
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.
EUH071 Corrosive to the respiratory tract.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
BEI	Biological Exposure Indices
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC10	Effect Concentration 10 %
EC50	Effect Concentration 50 %
Erc50	EC50 in terms of reduction of growth rate
GLP	Good Laboratory Practice
LC0	Lethal Concentration 0 %
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
LOAEC/LOAEL	Lowest Observed Adverse Effect Concentration/Lowest Observed Adverse Effect Level
NOAEC/NOAEL	No Observed Adverse Effect Concentration/No Observed Adverse Effect Level
NOEC/NOEL	No Observed Effect Concentration/No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

Reason for revision: 8, 15

Publication date: 2008-02-07

Date of revision: 2023-08-24

Revision number: 0601

BIG number: 43147

18 / 18