SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

TIRE RENEWER

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

1.1. Product identifier

Product name : TIRE RENEWER
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

Polishing agent

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@tec7.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.
Repr.	category 2	H361f: Suspected of damaging fertility.
STOT RE	category 2	H373: May cause damage to organs through prolonged or repeated exposure if inhaled.
Skin Irrit.	category 2	H315: Causes skin irritation.
STOT SE	category 3	H336: May cause drowsiness or dizziness.
Aquatic Chronic	category 2	H411: Toxic to aquatic life with long lasting effects.

2.2. Label elements

Contains: n-hexane; hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich.

Signal word Danger

H-statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.

H411	Toxic 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.
P280	Wear protective gloves, protective clothing and eye protection/face protection.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

2.3. Other hazards

Gas/vapour spreads at floor level: ignition hazard

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
n-hexane 01-2119480412-44	110-54-3 203-777-6	25%≤C<29%	Flam. Liq. 2; H225 Repr. 2; H361f Asp. Tox. 1; H304 STOT RE 2; H373 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(2)(8)(10)	Constituent
hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich		22.5% ≤C<25%	Flam. Liq. 2; H225 Repr. 2; H361f Asp. Tox. 1; H304 STOT RE 2; H373 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(2)(10)	Constituent
methyl acetate	79-20-9 201-185-2	8.5%≤C<10 %	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	(1)(2)(10)	Constituent
Hydrocarbons, C4 01-2119480480-41	87741-01-3 289-339-5	20% ≤C<22.5%	Flam. Gas 1; H220 Press. Gas - Compressed gas; H280	(1)(10)	Propellant
propane 01-2119486944-21	74-98-6 200-827-9	6.5%≤C<8%	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant

(1) For H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(8) Specific concentration limits, see heading 16
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

GENERAL. Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Rinse with water. Do not apply (chemical) neutralizing agents without medical advice. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Do not apply (chemical) neutralizing agents without medical advice. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

After inhalation:
EXPOSURE TO HIGH CONCENTRATIONS: Dizziness. Narcosis.
After skin contact:
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.

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: persistant 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. Protective goggles. Head/neck protection. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

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.

6.1.1 Protective equipment for non-emergency personnel
See heading 8.2

6.1.2 Protective equipment for emergency responders
Gloves. Protective goggles. Head/neck protection. Protective clothing.
Suitable protective clothing
See heading 8.2

6.2. Environmental precautions

Dam up the liquid spill.

6.3. Methods and material for containment and cleaning up

Liquid spill: cover with inert absorbent material. 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 heading 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 normal hygiene standards. Remove contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:
Storage temperature: < 50 °C. Store in a cool area. Keep out of direct sunlight. Fireproof storeroom. Ventilation at floor level. Meet the legal requirements.

7.2.2 Keep away from:
Heat sources, ignition sources, oxidizing agents, reducing agents, (strong) acids, (strong) bases.

7.2.3 Suitable packaging material:
Aerosol.

7.2.4 Non suitable packaging material:
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.

EU

n-Hexane	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	20 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	72 mg/m³

Belgium

Acétate de méthyle	Time-weighted average exposure limit 8 h	200 ppm
	Time-weighted average exposure limit 8 h	615 mg/m³
	Short time value	250 ppm
	Short time value	768 mg/m³
Hydrocarbures aliphatiques sous forme gazeuse: (Alcanes C1-C3)	Time-weighted average exposure limit 8 h	1000 ppm
n-Hexane	Time-weighted average exposure limit 8 h	20 ppm
	Time-weighted average exposure limit 8 h	72 mg/m³

The Netherlands

n-Hexaan	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	20 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	72 mg/m³
	Short time value (Public occupational exposure limit value)	40 ppm
	Short time value (Public occupational exposure limit value)	144 mg/m³

France

Acétate de méthyle	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	200 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	610 mg/m³
	Short time value (VL: Valeur non réglementaire indicative)	250 ppm
	Short time value (VL: Valeur non réglementaire indicative)	760 mg/m³
n-Hexane	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	20 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	72 mg/m³

Germany

Methylacetat	Time-weighted average exposure limit 8 h (TRGS 900)	200 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	620 mg/m³
n-Hexan	Time-weighted average exposure limit 8 h (TRGS 900)	50 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	180 mg/m³
Propan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1800 mg/m³

UK

Methyl acetate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	200 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	616 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	250 ppm
	Short time value (Workplace exposure limit (EH40/2005))	770 mg/m³
n-Hexane	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	20 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	72 mg/m³

USA (TLV-ACGIH)

Methyl acetate	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	200 ppm
	Short time value (TLV - Adopted Value)	250 ppm
n-Hexane	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	50 ppm

b) National biological limit values

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

Germany

Hexan (n-Hexan) (2,5-Hexandion plus 4,5-Dihydroxy-2-Hexanon (nach Hydrolyse))	Urin: expositionsende, bzw. schichtende	5 mg/l	5/2013 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG

USA (BEI-ACGIH)

n-Hexane (2,5-Hexanedion)	Urine: end of shift	0,5 mg/L	

8.1.2 Sampling methods

Product name	Test	Number
Methyl Acetate	NIOSH	1458
Methyl Acetate	OSHA	7
n-Hexane (Hydrocarbons, BP36 to 126C)	NIOSH	1500
n-Hexane (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
n-Hexane (Volatile Organic compounds)	NIOSH	2549
n-Hexane	OSHA	2248
n-Hexane	OSHA	7

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

n-hexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	75 mg/m³	
	Long-term systemic effects dermal	11 mg/kg bw/day	

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	13 mg/kg bw/day	
	Long-term systemic effects inhalation	93 mg/m³	

methyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	610 mg/m³	
	Long-term local effects inhalation	305 mg/m³	
	Long-term systemic effects dermal	88 mg/kg bw/day	

DNEL/DMEL - General population

n-hexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	16 mg/m³	
	Long-term systemic effects dermal	5.3 mg/kg bw/day	
	Long-term systemic effects oral	4 mg/kg bw/day	

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	7 mg/kg bw/day	
	Long-term systemic effects inhalation	20 mg/m³	
	Long-term systemic effects oral	6 mg/kg bw/day	

methyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	131 mg/m³	
	Long-term local effects inhalation	152 mg/m³	
	Long-term systemic effects dermal	44 mg/kg bw/day	
	Long-term systemic effects oral	44 mg/kg bw/day	

PNEC

methyl acetate

Compartments	Value	Remark
Fresh water	0.12 mg/l	
Marine water	0.012 mg/l	
Aqua (intermittent releases)	1.2 mg/l	
STP	600 mg/l	
Fresh water sediment	0.128 mg/kg sediment dw	
Marine water sediment	0.0128 mg/kg sediment dw	
Soil	0.0416 mg/kg soil dw	
Oral	20.4 mg/kg food	

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 normal hygiene standards. 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 (EN374).

c) Eye protection:

Protective goggles.

d) Skin protection:

Protective clothing. Head/neck protection.

8.2.3 Environmental exposure controls:

See headings 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
Colour	Colourless
Particle size	No data available
Explosion limits	No data available
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Evaporation rate	No data available
Relative vapour density	> 2
Vapour pressure	No data available
Solubility	Water ; insoluble
Relative density	0.68 ; Liquid
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Flash point	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

9.2. Other information

Absolute density	680 kg/m³ ; Liquid

SECTION 10: Stability and reactivity

10.1. Reactivity

May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.

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

Oxidizing agents, reducing agents, (strong) acids, (strong) bases.

10.6. Hazardous decomposition products

Upon combustion: CO and CO2 are formed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

TIRE RENEWER

No (test)data on the mixture available

Judgement is based on the relevant ingredients

n-hexane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	16000 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 3350 mg/kg bw	4 h	Rabbit (male)	Read-across	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 5000 ppm	24 h	Rat (male)	Experimental value	

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 16750 mg/kg		Rat (male)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 3350 mg/kg	4 h	Rabbit (male)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	73860 ppm	4 h	Rat (male)	Experimental value	

methyl acetate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	6482 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD0	OECD 402	2000 mg/kg bw	24 h	Rat (male / female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male / female)	Experimental value	
Inhalation (vapours)	LC0		49.2 mg/l	4 h	Rabbit (male / female)	Experimental value	
Inhalation (vapours)	LC100		98.4 mg/l	4 h	Rabbit (male / female)	Experimental value	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

TIRE RENEWER

No (test)data on the mixture available

Classification is based on the relevant ingredients

n-hexane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405		72 hours	Rabbit	Read-across	
Skin	Slightly irritating	Equivalent to OECD 404	24 h	24; 72 hours	Rabbit	Read-across	
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

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405		72 hours	Rabbit	Experimental value	
Skin	Irritating					Expert judgement	

methyl acetate

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

Conclusion

Causes skin irritation.
Not classified as irritating to the eyes
Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

TIRE RENEWER

No (test)data on the mixture available
Judgement is based on the relevant ingredients
n-hexane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 429			Mouse	Read-across	

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 429			Mouse	Read-across	

methyl acetate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Human observation			Human	Inconclusive, insufficient data	

Conclusion

Not classified as sensitizing for skin

Specific target organ toxicity

TIRE RENEWER

No (test)data on the mixture available
Classification is based on the relevant ingredients
n-hexane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Subchronic toxicity test	567 mg/kg bw/day - 1135 mg/kg bw/day		No effect	13 weeks (5 days / week)	Rat (male)	Experimental value
Oral (stomach tube)	LOAEL	Subchronic toxicity test	3956 mg/kg bw/day	Central nervous system	neurotoxic effects	17 weeks (5 days / week)	Rat (male)	Experimental value
Dermal								Data waiving
Inhalation (vapours)	LOAEC	Subchronic toxicity test	3000 ppm	Central nervous system	Impairment of the nervous system	16 weeks (daily)	Rat (male)	Experimental value
Inhalation (vapours)			STOT SE cat.3		Drowsiness, dizziness			Literature study

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	Other	6.6 mg/kg bw/day		No effect	13 weeks (5 days / week)	Rat (male)	Read-across
Oral	LOAEL	Other	46.2 mg/kg bw/day	Central nervous system	neurotoxic effects	17 weeks (5 days / week)	Rat (male)	Read-across
Inhalation (vapours)	NOAEL	Equivalent to OECD 413	≥ 8992 ppm		No effect	13 weeks (6h / day, 5 days / week)	Mouse (male / female)	Experimental value
Inhalation (vapours)	NOAEL	Equivalent to OECD 413	2984 ppm		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)			STOT SE cat.3		Drowsiness, dizziness			Literature

methyl acetate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral								Data waiving
Dermal								Data waiving
Inhalation (aerosol)	NOAEL	OECD 412	350 ppm		No effect	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (aerosol)	LOAEL	OECD 412	2000 ppm	Nose	Affection of the nasal septum	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

Conclusion

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure if inhaled.

Mutagenicity (in vitro)

TIRE RENEWER

No (test)data on the mixture available

n-hexane

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Result	Method	Test substrate	Effect	Value determination
Negative	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative	OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value

methyl acetate

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

Mutagenicity (in vivo)

TIRE RENEWER

No (test)data on the mixture available

Judgement is based on the relevant ingredients

n-hexane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative		8 weeks (6h / day, 5 days / week)	Mouse (male)		Experimental value

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 475		Rat (male / female)		Experimental value

methyl acetate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Bone marrow	Experimental value

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

TIRE RENEWER

No (test)data on the mixture available

Judgement is based on the relevant ingredients

n-hexane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	3000 ppm	104 weeks (6h / day, 5 days / week)	Mouse (female)	No carcinogenic effect		Read-across
Inhalation (vapours)	LOAEC	Equivalent to OECD 451	9018 ppm	104 weeks (6h / day, 5 days / week)	Mouse (female)	Tumor formation	Liver	Read-across
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	9018 ppm	104 weeks (6h / day, 5 days / week)	Mouse (male)	No carcinogenic effect		Read-across

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEL	Equivalent to OECD 451	916 ppm	105 week(s)	Rat (male / female)	No effect		Experimental value

methyl acetate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation								Data waiving
Dermal								Data waiving
Oral								Data waiving

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

TIRE RENEWER

No (test)data on the mixture available

Classification is based on the relevant ingredients

n-hexane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEC	Equivalent to OECD 414	9000 ppm	10 days (gestation, 6h / day)	Rat	No effect		Experimental value
Maternal toxicity	NOAEC	Equivalent to OECD 414	3000 ppm	10 days (gestation, 6h / day)	Rat	No effect		Experimental value
Maternal toxicity (Inhalation (vapours))	LOAEL	Equivalent to OECD 414	9000 ppm	10 days (gestation, 6h / day)	Rat	Weight gain		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEC	Equivalent to OECD 416	9000 ppm	≥ 13 weeks (6h / day, 5 days / week)	Rat (male / female)	No effect		Experimental value

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

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	Equivalent to OECD 414	3000 ppm	8 days (6h / day)	Mouse	No effect		Experimental value
	LOAEC	Equivalent to OECD 414	9000 ppm	8 days (6h / day)	Mouse	Minor skeletal variations	Foetus	Experimental value
	LOAEC	Equivalent to OECD 414	9000 ppm	8 days (6h / day)	Rat	No effect		Experimental value
Maternal toxicity	NOAEC	OECD 414	900 ppm	8 days (6h / day)	Mouse (female)	No effect		Experimental value
	NOAEL (P)	OECD 414	3000 ppm	8 days (6h / day)	Rat (female)	No effect		Experimental value
Effects on fertility	NOAEC	Equivalent to OECD 416	9000 ppm		Rat (male / female)	No effect		Experimental value
	LOAEL	Equivalent to OECD 416	9000 ppm		Rat (male / female)	Weight reduction	General	Experimental value

methyl acetate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC		3000 mg/m³ air		Rat	No effect	Foetus	Experimental value
Effects on fertility	NOAEC		3000 mg/m³ air		Rat (male / female)	No effect		Weight of evidence

Conclusion

Suspected of damaging fertility.

Toxicity other effects

TIRE RENEWER

No (test)data on the mixture available

methyl acetate

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
	Equivalent to OECD 404		Skin	Skin dryness or cracking	4 h	Rabbit	Experimental value

Chronic effects from short and long-term exposure

TIRE RENEWER

No effects known.

SECTION 12: Ecological information

12.1. Toxicity

TIRE RENEWER

No (test)data on the mixture available

Classification is based on the relevant ingredients

n-hexane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50		12.51 mg/l	96 h	Oncorhynchus mykiss		Fresh water	Estimated value; Nominal concentration
Acute toxicity crustacea	EL50		21.85 mg/l	48 h	Daphnia magna		Fresh water	Estimated value; Nominal concentration
Toxicity algae and other aquatic plants	EL50		9.285 mg/l	72 h	Pseudokirchneriella subcapitata		Fresh water	Estimated value; Growth rate
Long-term toxicity fish	NOELR		2.8 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	Estimated value; Nominal concentration
Long-term toxicity aquatic crustacea	NOELR		4.888 mg/l	21 day(s)	Daphnia magna		Fresh water	Estimated value; Nominal concentration

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		13.37 mg/l	96 h	Oncorhynchus mykiss		Fresh water	QSAR
Acute toxicity crustacea	EC50		23.35 mg/l	48 h	Daphnia magna		Fresh water	QSAR
Toxicity algae and other aquatic plants	EC50		9.90 mg/l	72 h	Pseudokirchneriella subcapitata		Fresh water	QSAR; Growth rate
Long-term toxicity fish	NOEL		2.99 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR; Growth rate
Long-term toxicity aquatic crustacea	EC50		5.22 mg/l	21 day(s)	Daphnia magna		Fresh water	QSAR
Toxicity aquatic micro-organisms	EC50		51.6 mg/l	48 h	Tetrahymena pyriformis		Fresh water	QSAR

methyl acetate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	250 mg/l - 350 mg/l	96 h	Brachydanio rerio	Static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	OECD 202	1026.7 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	OECD 201	> 120 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	LC50		> 1000 mg/l		Bacteria			Literature study

Conclusion

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

n-hexane

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	98 %; GLP	28 day(s)	Read-across

Biodegradation soil

Method	Value	Duration	Value determination
			Data waiving

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	95 %; GLP	14 day(s)	Read-across

methyl acetate

Biodegradation water

Method	Value	Duration	Value determination
OECD 302B: Inherent Biodegradability: Zahn-Wellens/EMPA Test	> 95 %	5 day(s)	Experimental value
OECD 301D: Closed Bottle Test	70 %; GLP	28 day(s)	Experimental value

Conclusion

Does not contain any not readily biodegradable component(s)

12.3. Bioaccumulative potential

TIRE RENEWER

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

n-hexane

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	Other	501.187		Pimephales promelas	QSAR

Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 107		4	20 °C	Experimental value

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

Log Kow

Method	Remark	Value	Temperature	Value determination
		4		Calculated

methyl acetate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		< 1		Pisces	Literature study

Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN		0.37	25 °C	Calculated

Conclusion

Contains bioaccumulative component(s)

12.4. Mobility in soil

n-hexane

(log) Koc

Parameter	Method	Value	Value determination
log Koc		3.34	QSAR

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	91.6 %	0 %	0.7 %	2.8 %	4.9 %	Calculated value

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

(log) Koc

Parameter	Method	Value	Value determination
Koc		2187.76	QSAR
log Koc		3.34	QSAR

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	97.4 %	0 %	0.9 %	0.2 %	1.5 %	Calculated value

methyl acetate

(log) Koc

Parameter	Method	Value	Value determination
log Koc	OECD 121	0.18	Experimental value

Conclusion

Contains component(s) with potential for mobility in the soil
Contains component(s) that adsorb(s) into 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. Other adverse effects

TIRE RENEWER

Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

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)

methyl acetate

Groundwater

Groundwater pollutant

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).
14 06 03* (waste organic solvents, refrigerants and foam/aerosol propellants: other solvents and solvent mixtures). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Recycle/reuse. Specific treatment. 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.

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	yes

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	yes

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)

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
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	yes

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	P
Environmentally hazardous substance mark	yes

14.6. Special precautions for user

Special provisions	63
Special provisions	190
Special provisions	277
Special provisions	327
Special provisions	344
Special provisions	381
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. Transport in bulk according to Annex II of Marpol and the IBC Code

Annex II of MARPOL 73/78	Not applicable

Air (ICAO-TI/IATA-DGR)

14.1. UN number

UN 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	yes

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

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
82.5 % - 94.5 %	

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
· n-hexane · hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich · methyl acetate	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. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled H304, intended for supply to the general public. 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'
· n-hexane · hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich · methyl acetate	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, — “whoopee” 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.

National legislation Belgium

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No data available

National legislation The Netherlands

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Waterbezwaarlijkheid	A (2); Algemene Beoordelingsmethodiek (ABM)

n-hexane

SZW - Lijst van voor de voortplanting giftige stoffen (vruchtbaarheid)	n-Hexaan; 2; Suspected of damaging fertility.

National legislation France

TIRE RENEWER

No data available

n-hexane

Catégorie toxique pour la reproduction	n-Hexane; R2

methyl acetate

Risque de pénétration percutanée	Acétate de méthyle; PP

National legislation Germany

TIRE RENEWER

WGK	3; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017

n-hexane

TA-Luft	5.2.5/I
TRGS900 - Risiko der Fruchtschädigung	n-Hexan; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich

TA-Luft	5.2.5/I

methyl acetate

TA-Luft	5.2.5
TRGS900 - Risiko der Fruchtschädigung	Methylacetat; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

National legislation United Kingdom

TIRE RENEWER

No data available

Other relevant data

TIRE RENEWER

No data available

n-hexane

Skin absorption	n-Hexane; Skin; Danger of cutaneous absorption

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H-statements referred to under heading 3:

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.
H373 May cause damage to organs (central nervous system) through prolonged or repeated exposure if inhaled.
H411 Toxic to aquatic life with long lasting effects.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration

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

Specific concentration limits CLP

n-hexane	C ≥ 5 %	STOT RE 2; H373	CLP Annex VI (ATP 0)

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.