

# SAFETY DATA SHEET

twinbond

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

## TWINBOND CLEAN

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

#### 1.1. Product identifier

**Product name** : TWINBOND CLEAN  
**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

Detergent according to Regulation (EC) No 648/2004  
Degreasing 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

Twinbond\*  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 25 76 40  
☎ +32 14 22 02 66  
info@novatech.be  
\* Twinbond 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)

24h/24h :  
Nederland - Nationaal Vergiftigingen Informatie Centrum (NVIC): +31 88 755 8000  
(Uitsluitend bestemd om artsen te informeren bij accidentele vergiftigingen)  
(Only for the purpose of informing medical personnel in cases of acute intoxications)

### 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
Flam. Liq.	category 3	H226: Flammable liquid and vapour.
Asp. Tox.	category 1	H304: May be fatal if swallowed and enters airways.
STOT SE	category 3	H336: May cause drowsiness or dizziness.
Aquatic Chronic	category 3	H412: Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements



Contains: hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics.

**Signal word** Danger

**H-statements**

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)  
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## P-statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye protection/face protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P331	Do NOT induce vomiting.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.

## Supplemental information

EUH066 Repeated exposure may cause skin dryness or cracking.

## 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 List No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics 01-2119471843-32	927-241-2	C≤100%	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H336 Aquatic Chronic 3; H412 EUH066	(1)(10)	UVCB	

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

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

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. If irritation persists, consult a doctor/medical service.

#### 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:

Headache. Dizziness. Drowsiness. EXPOSURE TO HIGH CONCENTRATIONS: Disturbances of consciousness.

##### After skin contact:

ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

##### After eye contact:

Redness of the eye tissue.

##### After ingestion:

Risk of aspiration pneumonia.

#### 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:

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Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.  
Major fire: Class B foam (not alcohol-resistant).

## 5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.  
Major fire: Water; risk of puddle expansion.

## 5.2. Special hazards arising from the substance or mixture

Upon combustion: CO and CO2 are formed.

## 5.3. Advice for firefighters

### 5.3.1 Instructions:

Cool tanks/drums with water spray/remove them into safety. 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). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Large spills/in enclosed spaces: self-contained breathing apparatus (EN 136 + EN 137). 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.

#### 6.1.1 Protective equipment for non-emergency personnel

See section 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Large spills/in enclosed spaces: self-contained breathing apparatus (EN 136 + EN 137).

Suitable protective clothing

See section 8.2

### 6.2. Environmental precautions

Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Prevent soil and water pollution. Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. 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. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Take precautions against electrostatic charges. Gas/vapour heavier than air at 20°C. Observe normal hygiene standards. Remove contaminated clothing immediately. Keep container tightly closed. 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. Store in a cool area. Keep container in a well-ventilated place. Protect against frost. Keep out of direct sunlight. Provide for a tub to collect spills.

#### 7.2.2 Keep away from:

Heat sources, ignition sources, oxidizing agents, reducing agents, (strong) acids, (strong) bases.

#### 7.2.3 Suitable packaging material:

No data available

#### 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.

##### b) National biological limit values

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

#### 8.1.2 Sampling methods

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If applicable and available it will be listed below.

## 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, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	871 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	77 mg/kg bw/day	

### DNEL/DMEL - General population

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	185 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	46 mg/kg bw/day	
	Long-term systemic effects oral	46 mg/kg bw/day	

## 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. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Take precautions against electrostatic charges. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

### 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:

High gas/vapour concentration: full face mask with filter type A.

#### b) Hand protection:

Protective gloves against chemicals (EN 374).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
nitrile rubber	> 480 minutes	0.35 mm	Class 6	

#### c) Eye protection:

Face shield (EN 166).

#### d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

### 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	Liquid
Odour	Characteristic odour
Odour threshold	No data available in the literature
Colour	No data available on colour
Particle size	Not applicable (liquid)
Explosion limits	0.6 - 7 vol %
Flammability	Flammable liquid and vapour.
Log Kow	Not applicable (mixture)
Dynamic viscosity	1 mPa.s ; 20 °C
Kinematic viscosity	1 mm <sup>2</sup> /s ; 20 °C
Melting point	No data available in the literature
Boiling point	130 °C - 166 °C
Relative vapour density	No data available in the literature
Vapour pressure	4.6 hPa ; 20 °C
Solubility	Water ; insoluble
Relative density	0.76 ; 20 °C
Absolute density	764 kg/m <sup>3</sup> ; 20 °C
Decomposition temperature	No data available in the literature
Auto-ignition temperature	200 °C
Flash point	24 °C
pH	Not applicable (non-soluble in water)

### 9.2. Other information

Evaporation rate	0.35 ; Butyl acetate
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## 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. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Take precautions against electrostatic charges.

### 10.5. Incompatible materials

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

### 10.6. Hazardous decomposition products

Upon combustion: CO and CO<sub>2</sub> 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

##### TWINBOND CLEAN

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 15000 mg/kg bw		Rat (male / female)	Read-across	
Dermal	LD50	Equivalent to OECD 402	> 3160 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	6.1 mg/l	4 h	Rat (male / female)	Experimental value	

#### Conclusion

Not classified for acute toxicity

#### Corrosion/irritation

##### TWINBOND CLEAN

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

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	Not irritating	Equivalent to OECD 404	4 h	24; 48; 72 hours	Rabbit	Read-across	

#### Conclusion

Not classified as irritating to the respiratory system

Not classified as irritating to the skin

Not classified as irritating to the eyes

#### Respiratory or skin sensitisation

##### TWINBOND CLEAN

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

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

#### Conclusion

Not classified as sensitizing for inhalation

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Not classified as sensitizing for skin

## Specific target organ toxicity

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No (test)data on the mixture available

Classification is based on the relevant ingredients

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	> 500 mg/kg bw/day		No adverse systemic effects	13 weeks (daily)	Rat (male / female)	Read-across
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	> 10400 mg/m <sup>3</sup> air		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Read-across
Inhalation (vapours)			STOT SE cat.3		Drowsiness, dizziness			Literature study

### Conclusion

May cause drowsiness or dizziness.

Not classified for subchronic toxicity

## Mutagenicity (in vitro)

### TWINBOND CLEAN

No (test)data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria ( <i>S.typhimurium</i> )	No effect	Read-across	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Human lymphocytes	No effect	Read-across	

## Mutagenicity (in vivo)

### TWINBOND CLEAN

No (test)data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Inhalation (vapours))	Equivalent to OECD 478	5 days (6h / day)	Rat (male / female)		Read-across

### Conclusion

Not classified for mutagenic or genotoxic toxicity

## Carcinogenicity

### TWINBOND CLEAN

No (test)data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Dermal	NOAEL	Carcinogenic toxicity study	50 %	52 week(s)	Mouse (male)	Tumor formation	Skin	Experimental value

### Conclusion

Not classified for carcinogenicity

## Reproductive toxicity

### TWINBOND CLEAN

No (test)data on the mixture available

Judgement is based on the relevant ingredients

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hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEL	Equivalent to OECD 414	≥ 5220 mg/m <sup>3</sup> air	10 days (6h / day)	Rat	No effect		Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEL	Equivalent to OECD 414	> 5220 mg/m <sup>3</sup> air	10 days (6h / day)	Rat	No effect		Read-across

## Conclusion

Not classified for reprotoxic or developmental toxicity

## Aspiration hazard

Classification is based on the relevant ingredients  
May be fatal if swallowed and enters airways.

## Toxicity other effects

### TWINBOND CLEAN

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Skin					Skin dryness or cracking			Literature study

## Conclusion

Repeated exposure may cause skin dryness or cracking.

## Chronic effects from short and long-term exposure

### TWINBOND CLEAN

No effects known.

## 11.2. Information on other hazards

No evidence of endocrine disrupting properties

## SECTION 12: Ecological information

### 12.1. Toxicity

#### TWINBOND CLEAN

No (test) data on the mixture available

Classification is based on the relevant ingredients

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	10 mg/l - 30 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EL50	OECD 202	22 mg/l - 46 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	NOEL	OECD 201	< 1 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOEL		0.182 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR; Nominal concentration
Long-term toxicity aquatic crustacea	NOELR		0.317 mg/l	21 day(s)	Daphnia magna		Fresh water	QSAR; Nominal concentration

## Conclusion

Harmful to aquatic life with long lasting effects.

### 12.2. Persistence and degradability

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	89 %; Oxygen consumption	28 day(s)	Experimental value

#### Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	18.679 h	1.5E6 /cm <sup>3</sup>	Calculated value

## Conclusion

### Water

Contains readily biodegradable component(s)

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## 12.3. Bioaccumulative potential

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### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBFAF v3.01	6.91 l/kg - 1582.4 l/kg		Pisces	QSAR

### Log Kow

Method	Remark	Value	Temperature	Value determination
		1.99 - 5.25		QSAR

### Conclusion

Contains bioaccumulative component(s)

## 12.4. Mobility in soil

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

### (log) Koc

Parameter	Method	Value	Value determination
log Koc		4.16 - 5.88	Weight of evidence

### Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	89.8 %	0 %	6.2 %	1.8 %	2.2 %	Calculated value

### Conclusion

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. Endocrine disrupting properties

No evidence of endocrine disrupting properties

## 12.7. Other adverse effects

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### Greenhouse gases

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)

## SECTION 14: Transport information

### Road (ADR)

#### 14.1. UN number

UN number	3295
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#### 14.2. UN proper shipping name

Proper shipping name	hydrocarbons, liquid, n.o.s.
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#### 14.3. Transport hazard class(es)

Hazard identification number	30
Class	3
Classification code	F1

#### 14.4. Packing group

Packing group	III
Labels	3

#### 14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

#### 14.6. Special precautions for user

Special provisions	
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

### Rail (RID)

#### 14.1. UN number

UN number	3295
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#### 14.2. UN proper shipping name

Proper shipping name	hydrocarbons, liquid, n.o.s.
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#### 14.3. Transport hazard class(es)

Hazard identification number	30
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Class	3
Classification code	F1
<b>14.4. Packing group</b>	
Packing group	III
Labels	3
<b>14.5. Environmental hazards</b>	
Environmentally hazardous substance mark	no
<b>14.6. Special precautions for user</b>	
Special provisions	
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

## Inland waterways (ADN)

<b>14.1. UN number</b>	
UN number	3295
<b>14.2. UN proper shipping name</b>	
Proper shipping name	hydrocarbons, liquid, n.o.s.
<b>14.3. Transport hazard class(es)</b>	
Class	3
Classification code	F1
<b>14.4. Packing group</b>	
Packing group	III
Labels	3
<b>14.5. Environmental hazards</b>	
Environmentally hazardous substance mark	no
<b>14.6. Special precautions for user</b>	
Special provisions	
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

## Sea (IMDG/IMSBC)

<b>14.1. UN number</b>	
UN number	3295
<b>14.2. UN proper shipping name</b>	
Proper shipping name	hydrocarbons, liquid, n.o.s.
<b>14.3. Transport hazard class(es)</b>	
Class	3
<b>14.4. Packing group</b>	
Packing group	III
Labels	3
<b>14.5. Environmental hazards</b>	
Marine pollutant	-
Environmentally hazardous substance mark	no
<b>14.6. Special precautions for user</b>	
Special provisions	223
Limited quantities	Combination packagings: not more than 5 liters per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
<b>14.7. Maritime transport in bulk according to IMO instruments</b>	
Annex II of MARPOL 73/78	Not applicable, based on available data

## Air (ICAO-TI/IATA-DGR)

<b>14.1. UN number</b>	
UN number	3295
<b>14.2. UN proper shipping name</b>	
Proper shipping name	hydrocarbons, liquid, n.o.s.
<b>14.3. Transport hazard class(es)</b>	
Class	3
<b>14.4. Packing group</b>	
Packing group	III
Labels	3
<b>14.5. Environmental hazards</b>	
Environmentally hazardous substance mark	no
<b>14.6. Special precautions for user</b>	
Special provisions	A3
Special provisions	A324
<b>Passenger and cargo transport</b>	
Limited quantities: maximum net quantity per packaging	10 L

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## 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
100 %	
764 g/l	

Directive 2012/18/EU (Seveso III)

Threshold values under special circumstances

Substance or category	Special circumstances	Low tier (tonnes)	Top tier (tonnes)	Group	For this substance or mixture the summation rule has to be applied for:
P5a FLAMMABLE LIQUIDS	Maintained at a temperature above the boiling point	10	50	None	Flammability
P5b FLAMMABLE LIQUIDS	Particular processing conditions, such as high pressure or high temperature, may create major-accident hazards	50	200	None	Flammability

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:
P5c FLAMMABLE LIQUIDS	5000	50000	None	Flammability

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

≥30% aliphatic hydrocarbons

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, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics	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.
· hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics	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

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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 TWINBOND CLEAN

No data available

## National legislation The Netherlands TWINBOND CLEAN

Waterbezwaarlijkheid	B (3); Algemene Beoordelingsmethodiek (ABM)
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## National legislation France TWINBOND CLEAN

No data available

## National legislation Germany TWINBOND CLEAN

Lagerklasse (TRGS510)	3: Entzündbare Flüssigkeiten
WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
TA-Luft	5.2.5/I

## National legislation Austria TWINBOND CLEAN

No data available

## National legislation United Kingdom TWINBOND CLEAN

No data available

## Other relevant data TWINBOND CLEAN

No data available

## 15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

## SECTION 16: Other information

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

H226 Flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H336 May cause drowsiness or dizziness.  
H412 Harmful to aquatic life with long lasting effects.  
EUH066 Repeated exposure may cause skin dryness or cracking.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
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 %
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

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