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

· **1.1 Product identifier**

· **Trade name: Tar Remover**

· **Article number:** 111250
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· **Sector of Use**
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
· **Application of the substance / the mixture** Aid

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Zettex Europe BV
Plaza 20, 4782 SK Moerdijk
The Netherlands
+31(0)888-938839
info@zettex.nl
www.zettex.nl

· **Further information obtainable from:** Research & Development
· **1.4 Emergency telephone number:** During normal business hours: +31(0)888-938839

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**


GHS02 flame

Aerosol 1	H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.


GHS09 environment

Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.


GHS07

Skin Irrit. 2	H315	Causes skin irritation.
STOT SE 3	H336	May cause drowsiness or dizziness.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms**


GHS02 GHS07 GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.12.2018 Version: 4 Revision: 17.08.2018

Trade name: Tar Remover

(Contd. of page 1)

Reaction mass of ethylbenzene and xylene
Methylcyclohexane

· **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251 Do not pierce or burn, even after use.
P260 Do not breathe mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P403 Store in a well-ventilated place.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**
Buildup of explosive mixtures possible without sufficient ventilation.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:** Active substance with propellant

· **Dangerous components:**

EC number: 920-750-0 Reg.nr.: 01-2119473851-33	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336	50-<75%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32	butane (containing < 0.1% butadiene (203-450-8)) Flam. Gas 1, H220; Press. Gas (Comp.), H280	10-<25%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane Flam. Gas 1, H220; Press. Gas (Comp.), H280	10-<25%
CAS: 108-87-2 EINECS: 203-624-3 Reg.nr.: 01-2119556887-18	Methylcyclohexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	2.5-<10%
EC number: 905-588-0 Reg.nr.: 01-2119488216-32 01-2119486136-34	Reaction mass of ethylbenzene and xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	2.5-<10%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27	isobutane (containing < 0,1 % butadiene (203-450-8)) Flam. Gas 1, H220; Press. Gas (Comp.), H280	1-<2.5%

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.12.2018 Version: 4 Revision: 17.08.2018

Trade name: Tar Remover

(Contd. of page 2)

· **Ingredients according to detergents guidline 648/2004/EC**	
aliphatic hydrocarbons	≥30%
aromatic hydrocarbons	<5%

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:** Do not induce vomiting; call for medical help immediately.
· **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
Water haze
Fire-extinguishing powder
Carbon dioxide
Alcohol resistant foam
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
· **5.3 Advice for firefighters**
· **Protective equipment:** Mount respiratory protective device.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
· **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.12.2018 Version: 4 Revision: 17.08.2018

Trade name: Tar Remover

(Contd. of page 3)

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurised containers.
· **Information about storage in one common storage facility:**
Observe official regulations on storing packagings with pressurised containers.
· **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
106-97-8 butane (containing < 0.1% butadiene (203-450-8))	
WEL	Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
74-98-6 propane	
WEL	Long-term value: 1800 mg/m³
75-28-5 isobutane (containing < 0,1 % butadiene (203-450-8))	
WEL	Short-term value: 2400 mg/m³ Long-term value: 1900 mg/m³

· **DNELs**		
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics		
Oral	DNEL Long term-systemic	699 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	699 mg/kg bw/day (Consumer)
		773 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	608 mg/m3 (Consumer)
		2,035 mg/m3 (Worker)
Reaction mass of ethylbenzene and xylene		
Oral	DNEL Long term-systemic	1.6 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	108 mg/kg bw/day (Consumer)
		180 mg/kg bw/day (Worker)
Inhalative	DNEL Acute-local	289 mg/m3 (Worker)
	DNEL Long term-systemic	14.8 mg/m3 (Consumer)
		77 mg/m3 (Worker)

· **PNECs**	
Reaction mass of ethylbenzene and xylene	
PNEC Freshwater	0.327 mg/l (Undefind)
PNEC Marine water	0.327 mg/l (Undefind)
PNEC Freshwater sediment	12.46 mg/l(dry weight) (Undefind)
PNEC Soil	2.31 (Undefind)
PNEC Sewage Treatment Plant	6.58 mg/l (Undefind)

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.12.2018 Version: 4 Revision: 17.08.2018

Trade name: Tar Remover

(Contd. of page 4)

PNEC Marine water sediment	12.46 mg/l(dry weight) (Undefind)

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
· **Respiratory protection:**
Filter A/P2
Use suitable respiratory protective device in case of insufficient ventilation.
Filter A2P2
· **Protection of hands:**
Wear gloves for the protection against chemicals according to EN 374


Protective gloves

Solvent resistant gloves
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.5 mm
· **Penetration time of glove material**
For continuous contact we recommend gloves with breakthrough time of at least 240 minutes, with the preference given to a breakthrough time greater than 480 minutes. For short-term or splash guard we recommend the same. We are aware that suitable gloves that offer this level of protection may not be available. In that case, a shorter breakthrough time are acceptable as long as the procedures governing maintenance and timely replacement are followed. The thickness of the gloves is not a good measure of the resistance of the gloves against a chemical substance, because this depends on the exact composition of the material from which the gloves are made.
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**
Safety glasses


Tightly sealed goggles

· **Body protection:** Use protective suit. (EN-13034/6)

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Aerosol
Colour:	Not determined.
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **pH-value:**	Not determined.

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.12.2018 Version: 4 Revision: 17.08.2018

Trade name: Tar Remover

(Contd. of page 5)

· **Change in condition**	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	-44.5 °C
· **Flash point:**	-97 °C
· **Flammability (solid, gas):**	Not applicable.
· **Auto-ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product is not explosive. However, formation of explosive air/ vapour mixtures are possible. Not determined.
· **Explosion limits:**	
Lower:	0.7 Vol %
Upper:	10.9 Vol %
· **Vapour pressure at 20 °C:**	8,300 hPa
· **Density at 20 °C:**	0.675 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with water:**	Not miscible or difficult to mix.
· **Partition coefficient: n-octanol/water:**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	100.0 %
Solids content:	0.0 %
· **9.2 Other information**	No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics		
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,800 mg/kg (rabbit)
Inhalative	LC50/4 h	>23 mg/l (rat)

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.12.2018 Version: 4 Revision: 17.08.2018

Trade name: Tar Remover

(Contd. of page 6)

Reaction mass of ethylbenzene and xylene		
Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rbt)

· **Primary irritant effect:**
· **Skin corrosion/irritation**
Causes skin irritation.
· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):**
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure**
May cause drowsiness or dizziness.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard**
May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	
NOELR (72h)	10 mg/l (Pseudokirchneriella subcapitata)
EL50 (72h)	10-30 mg/l (Pseudokirchneriella subcapitata)
LL50 (96h)	>13.4 mg/l (Oncorhynchus mykiss (96h))
NOEC (21 days)	0.17 mg/l (Daphnia magna)
LOEC (21 days)	0.32 mg/l (Daphnia magna)
EC50/48h	3 mg/l (Daphnia magna)
108-87-2 Methylcyclohexane	
LC50(48h)	5 mg/l (Fish)
Reaction mass of ethylbenzene and xylene	
NOEC	1.3 mg/l (Fish)
NOEC (7 day)	0.96 mg/l (Daphnia magna)
NOEC (72h)	0.44 mg/l (algae)
NOEC (28 d)	16 mg/l (Bacteria)
LC50/96h	8.9-16.4 mg/l (Pimephales promelas)
EC50/48h	3.2-9.5 mg/l (Daphnia magna)

· **12.2 Persistence and degradability** No further relevant information available.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **Ecotoxical effects:**
· **Remark:** Toxic for fish
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.12.2018 Version: 4 Revision: 17.08.2018

Trade name: Tar Remover

(Contd. of page 7)

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN-Number**	
· **ADR, ADN, IMDG, IATA**	UN1950
· **14.2 UN proper shipping name**	
· **ADR, ADN**	UN1950 AEROSOLS
· **IMDG**	AEROSOLS (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics, METHYLCYCLOHEXANE), MARINE POLLUTANT
· **IATA**	AEROSOLS, flammable
· **14.3 Transport hazard class(es)**	
· **ADR**	
· **Class**	2 5F Gases.
· **Label**	2.1
· **ADN**	
· **ADN/R Class:**	2 5F
· **IMDG**	
· **Class**	2.1
· **Label**	2.1
· **IATA**	
· **Class**	2.1
· **Label**	2.1
· **14.4 Packing group**	
· **ADR, IMDG, IATA**	Void
· **14.5 Environmental hazards:**	Product contains environmentally hazardous substances: Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics
· **Marine pollutant:**	Symbol (fish and tree)

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.12.2018 Version: 4 Revision: 17.08.2018

Trade name: Tar Remover

(Contd. of page 8)

· **Special marking (ADR):**	Symbol (fish and tree)
· **14.6 Special precautions for user**	Warning: Gases.
· **Danger code (Kemler):**	-
· **EMS Number:**	F-D,S-U
· **Stowage Code**	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· **Segregation Code**	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **Transport category**	2
· **Tunnel restriction code**	D
· **IMDG**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **UN "Model Regulation":**	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category**
P3a FLAMMABLE AEROSOLS
E2 Hazardous to the Aquatic Environment
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **National regulations:**

Class	Share in %
NK	75-<100

· **VOC-CH** 100.00 %
· **VOC-EU** 675.0 g/l
· **Danish MAL Code** 5-3
· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.12.2018 Version: 4 Revision: 17.08.2018

Trade name: Tar Remover

(Contd. of page 9)

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

· **Contact:**

· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Gas 1: Flammable gases – Category 1
Aerosol 1: Aerosols – Category 1
Press. Gas (Comp.): Gases under pressure – Compressed gas
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2