

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

1.1. Product identifier

Product form : Substance (UVCB)

Trade name : Pyrolysis C9

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only

Use of the substance/mixture : Fuel

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier (Only Representative):
Braskem Netherland BV
Weena 238-240, 9th Floor, Tower C
NL - 3012 NJ – RotterdamManufacturer:
Braskem S.A.
Rua Eteno, 1561
Polo Petroquímico de Camaçari
42810-000 – Camaçari – BA – BrasilBraskem S.A.
BR 386 – Rodovia Tabai-Canoas, km 419
Via do Contorno, 850
95853-000 – Triunfo – RS – BrasilBraskem S.A.
Av. Presidente Costa e Silva, 1178 – Capuava
09270-001 – Santo André – SP – Brasil

productsafety@braskem.com

1.4. Emergency telephone number

Emergency number : +31 10 205 2945

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 3 H226

Skin Irrit. 2 H315

Asp. Tox. 1 H304

Aquatic Chronic 3 H412

Full text of hazard classes and H-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS02



GHS07



GHS08

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Signal word (CLP)	: Danger
Hazard statements (CLP)	: H226 - Flammable liquid and vapour H304 - May be fatal if swallowed and enters airways H315 - Causes skin irritation H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (CLP)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P233 - Keep container tightly closed P240 - Ground/bond container and receiving equipment P241 - Use explosion-proof electrical, lighting, ventilating equipment P264 - Wash hands thoroughly after handling P273 - Avoid release to the environment

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type	: UVCB
Name	: Pyrolysis C9
synonym	: Flammable Liquid, NOS; Alkyl (C3-C4) benzene (n)

Name	Product identifier	%
Pyrolysis C9	(CAS No) Not Applicable	100
m-Ethyltoluene	(CAS No) 620-14-4 (EC no) 210-626-8	15-20
o-Xylene	(CAS No) 95-47-6 (EC no) 202-422-2 (EC index no) 601-022-00-9	10-15
n-Propylbenzene	(CAS No) 103-65-1 (EC no) 203-132-9 (EC index no) 601-024-00-X	5-10
p-Ethyltoluene	(CAS No) 622-96-8 (EC no) 210-761-2	5-8
Benzene, 1,2,4-trimethyl-	(CAS No) 95-63-6 (EC no) 202-436-9 (EC index no) 601-043-00-3	5-8
Benzene, 1-ethyl-2-methyl-	(CAS No) 611-14-3 (EC no) 210-255-1	5-8
1,2,3-Trimethylbenzene	(CAS No) 526-73-8 (EC no) 208-394-8	2.86
Cumene	(CAS No) 98-82-8 (EC no) 202-704-5 (EC index no) 601-024-00-X	1-3

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation persists, seek medical attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Immediately call a POISON CENTRE or doctor/physician.

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

Symptoms/injuries after inhalation	: Overexposure to vapours may result in cough.
Symptoms/injuries after skin contact	: Causes skin irritation. Prolonged or repeated contact with the skin may cause dermatitis.
Symptoms/injuries after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion	: Ingestion may cause nausea and vomiting. May be fatal if swallowed and enters airways. May result in aspiration into the lungs, causing chemical pneumonia.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable liquid and vapour. Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.
Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip clean-up crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Ventilate area. Avoid all eye and skin contact and do not breathe vapour and mist. Spilled material may present a slipping hazard.

6.2. Environmental precautions

- Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Contain and collect as any solid. Contain leaking substance, pump over in suitable containers.
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

- For further information refer to section 8: Exposure-controls/personal protection. For disposal of residues refer to section 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist, spray, and vapours. Use only outdoors or in a well-ventilated area.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting, ventilating equipment.
Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container tightly closed.
Incompatible materials : Strong bases. Strong acids.
Storage area : Store in a dry, cool and well-ventilated place. Store away from heat.

7.3. Specific end use(s)

- Refer to section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

o-Xylene (95-47-6)		
EU	Local name	o-Xylene
EU	IOELV TWA (mg/m³)	221 mg/m³

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o-Xylene (95-47-6)		
EU	IOELV TWA (ppm)	50 ppm
EU	IOELV STEL (mg/m ³)	442 mg/m ³
EU	IOELV STEL (ppm)	100 ppm
EU	Notes	Skin
Austria	MAK (mg/m ³)	221 mg/m ³
Austria	MAK (ppm)	50 ppm
Austria	MAK Short time value (mg/m ³)	442 mg/m ³
Austria	MAK Short time value (ppm)	100 ppm
Belgium	Limit value (mg/m ³)	221 mg/m ³
Belgium	Limit value (ppm)	50 ppm
Belgium	Short time value (mg/m ³)	442 mg/m ³
Belgium	Short time value (ppm)	100 ppm
Bulgaria	OEL TWA (mg/m ³)	221.0 mg/m ³
Bulgaria	OEL TWA (ppm)	50 ppm
Bulgaria	OEL STEL (mg/m ³)	442.0 mg/m ³
Bulgaria	OEL STEL (ppm)	100 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	221 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	50 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³)	442 mg/m ³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	100 ppm
Cyprus	OEL TWA (mg/m ³)	221 mg/m ³
Cyprus	OEL TWA (ppm)	50 ppm
Cyprus	OEL STEL (mg/m ³)	442 mg/m ³
Cyprus	OEL STEL (ppm)	100 ppm
Czech Republic	Expoziční limity (PEL) (mg/m ³)	200 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	109 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	25 ppm
Estonia	OEL TWA (mg/m ³)	221 mg/m ³
Estonia	OEL TWA (ppm)	50 ppm
Estonia	OEL STEL (mg/m ³)	442 mg/m ³
Estonia	OEL STEL (ppm)	100 ppm
Finland	HTP-arvo (8h) (mg/m ³)	220 mg/m ³
Finland	HTP-arvo (8h) (ppm)	50 ppm
Finland	HTP-arvo (15 min)	440 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	100 ppm
France	Local name	o-Xylène
France	VME (mg/m ³)	221 mg/m ³
France	VME (ppm)	50 ppm
France	VLE (mg/m ³)	442 mg/m ³
France	VLE (ppm)	100 ppm
Gibraltar	OEL TWA (mg/m ³)	221 mg/m ³
Gibraltar	OEL TWA (ppm)	50 ppm
Gibraltar	OEL STEL (mg/m ³)	442 mg/m ³
Gibraltar	OEL STEL (ppm)	100 ppm
Greece	OEL TWA (mg/m ³)	435 mg/m ³
Greece	OEL TWA (ppm)	100 ppm
Greece	OEL STEL (mg/m ³)	650 mg/m ³
Greece	OEL STEL (ppm)	150 ppm
Hungary	AK-érték	221 mg/m ³
Hungary	CK-érték	442 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	221 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	50 ppm
Ireland	OEL (15 min ref) (mg/m ³)	442 mg/m ³ (total inhalable dust)

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o-Xylene (95-47-6)		
Ireland	OEL (15 min ref) (ppm)	100 ppm (fume)
Italy	OEL TWA (mg/m ³)	221 mg/m ³
Italy	OEL TWA (ppm)	50 ppm
Italy	OEL STEL (mg/m ³)	442 mg/m ³
Italy	OEL STEL (ppm)	100 ppm
Latvia	OEL TWA (mg/m ³)	221 mg/m ³
Latvia	OEL TWA (ppm)	50 ppm
Lithuania	IPRV (mg/m ³)	200 mg/m ³
Lithuania	IPRV (ppm)	50 ppm
Lithuania	TPRV (mg/m ³)	450 mg/m ³
Lithuania	TPRV (ppm)	100 ppm
Luxembourg	OEL TWA (mg/m ³)	221 mg/m ³
Luxembourg	OEL TWA (ppm)	50 ppm
Luxembourg	OEL STEL (mg/m ³)	442 mg/m ³
Luxembourg	OEL STEL (ppm)	100 ppm
Malta	OEL TWA (mg/m ³)	221 mg/m ³
Malta	OEL TWA (ppm)	50 ppm
Malta	OEL STEL (mg/m ³)	442 mg/m ³
Malta	OEL STEL (ppm)	100 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	210 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	442 mg/m ³
Poland	NDS (mg/m ³)	100 mg/m ³
Portugal	OEL TWA (mg/m ³)	221 mg/m ³ (indicative limit value)
Portugal	OEL TWA (ppm)	50 ppm (indicative limit value)
Portugal	OEL STEL (mg/m ³)	442 mg/m ³ (indicative limit value)
Portugal	OEL STEL (ppm)	100 ppm (indicative limit value)
Romania	OEL STEL (mg/m ³)	442 mg/m ³
Romania	OEL STEL (ppm)	100 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	221 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	50 ppm
Slovakia	NPHV (Hraničná) (mg/m ³)	442 mg/m ³
Slovenia	OEL TWA (mg/m ³)	221 mg/m ³
Slovenia	OEL TWA (ppm)	50 ppm
Slovenia	OEL STEL (mg/m ³)	442 mg/m ³
Slovenia	OEL STEL (ppm)	100 ppm
Spain	VLA-ED (mg/m ³)	221 mg/m ³ (indicative limit value)
Spain	VLA-ED (ppm)	50 ppm (indicative limit value)
Spain	VLA-EC (mg/m ³)	442 mg/m ³
Spain	VLA-EC (ppm)	100 ppm
Sweden	nivågränsvärde (NVG) (mg/m ³)	221 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	442 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	100 ppm
United Kingdom	WEL TWA (mg/m ³)	220 mg/m ³
United Kingdom	WEL TWA (ppm)	50 ppm
United Kingdom	WEL STEL (mg/m ³)	441 mg/m ³
United Kingdom	WEL STEL (ppm)	100 ppm
USA - ACGIH	ACGIH TWA (ppm)	100 ppm
USA - ACGIH	ACGIH STEL (ppm)	150 ppm
p-Ethyltoluene (622-96-8)		
Romania	OEL TWA (mg/m ³)	300 mg/m ³
Romania	OEL TWA (ppm)	61 ppm

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p-Ethyltoluene (622-96-8)		
Romania	OEL STEL (mg/m³)	400 mg/m³
Romania	OEL STEL (ppm)	81 ppm
Benzene, 1,2,4-trimethyl- (95-63-6)		
EU	Local name	1,2,4-Trimethylbenzene
EU	IOELV TWA (mg/m³)	100 mg/m³
EU	IOELV TWA (ppm)	20 ppm
Austria	MAK (mg/m³)	100 mg/m³
Austria	MAK (ppm)	20 ppm
Austria	MAK Short time value (mg/m³)	150 mg/m³
Austria	MAK Short time value (ppm)	30 ppm
Bulgaria	OEL TWA (mg/m³)	100.0 mg/m³
Bulgaria	OEL TWA (ppm)	20 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	100 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	20 ppm
Cyprus	OEL TWA (mg/m³)	100 mg/m³
Cyprus	OEL TWA (ppm)	20 ppm
Czech Republic	Expoziční limity (PEL) (mg/m³)	100 mg/m³
Denmark	Grænseværdie (langvarig) (mg/m³)	100 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	20 ppm
Estonia	OEL TWA (mg/m³)	100 mg/m³
Estonia	OEL TWA (ppm)	20 ppm
Finland	HTP-arvo (8h) (mg/m³)	100 mg/m³
Finland	HTP-arvo (8h) (ppm)	20 ppm
France	Local name	1,2,4-Triméthylbenzène
France	VME (mg/m³)	100 mg/m³
France	VME (ppm)	20 ppm
France	VLE (mg/m³)	250 mg/m³
France	VLE (ppm)	50 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	100 mg/m³ (The risk of damage to the embryo or foetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	20 ppm (The risk of damage to the embryo or foetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 903 (BGW)	400 mg/g (Medium: urine - Time: end of shift - Parameter: Dimethylbenzoic acid (sum of all isomers after hydrolysis) 400 mg/g (Medium: urine - Time: end of several shifts - Parameter: Dimethylbenzoic acid (sum of all isomers after hydrolysis))
Gibraltar	OEL TWA (mg/m³)	100 mg/m³
Gibraltar	OEL TWA (ppm)	20 ppm
Greece	OEL TWA (mg/m³)	125 mg/m³
Greece	OEL TWA (ppm)	25 ppm
Hungary	AK-érték	100 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	100 mg/m³
Ireland	OEL (8 hours ref) (ppm)	20 ppm
Ireland	OEL (15 min ref) (mg/m³)	300 mg/m³ (calculated)
Ireland	OEL (15 min ref) (ppm)	60 ppm (calculated)
Italy	OEL TWA (mg/m³)	100 mg/m³
Italy	OEL TWA (ppm)	20 ppm
Latvia	OEL TWA (mg/m³)	100 mg/m³
Latvia	OEL TWA (ppm)	20 ppm
Luxembourg	OEL TWA (mg/m³)	100 mg/m³
Luxembourg	OEL TWA (ppm)	20 ppm
Malta	OEL TWA (mg/m³)	100 mg/m³

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Benzene, 1,2,4-trimethyl- (95-63-6)		
Malta	OEL TWA (ppm)	20 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	100 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	200 mg/m ³
Poland	NDS (mg/m ³)	100 mg/m ³
Poland	NDSch (mg/m ³)	170 mg/m ³
Portugal	OEL TWA (mg/m ³)	100 mg/m ³ (indicative limit value)
Portugal	OEL TWA (ppm)	20 ppm (indicative limit value)
Romania	OEL TWA (mg/m ³)	100 mg/m ³
Romania	OEL TWA (ppm)	20 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	100 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Slovakia	NPHV (Hraničná) (mg/m ³)	200 mg/m ³
Slovenia	OEL TWA (mg/m ³)	100 mg/m ³
Slovenia	OEL TWA (ppm)	20 ppm
Spain	VLA-ED (mg/m ³)	100 mg/m ³ (indicative limit value)
Spain	VLA-ED (ppm)	20 ppm (indicative limit value)
Sweden	nivågränsvärde (NVG) (mg/m ³)	120 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	25 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	170 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	35 ppm
Cumene (98-82-8)		
EU	Local name	Cumene
EU	IOELV TWA (mg/m ³)	100 mg/m ³
EU	IOELV TWA (ppm)	20 ppm
EU	IOELV STEL (mg/m ³)	250 mg/m ³
EU	IOELV STEL (ppm)	50 ppm
EU	Notes	Skin
Austria	MAK (mg/m ³)	100 mg/m ³
Austria	MAK (ppm)	20 ppm
Austria	MAK Short time value (mg/m ³)	250 mg/m ³
Austria	MAK Short time value (ppm)	50 ppm
Belgium	Limit value (mg/m ³)	100 mg/m ³
Belgium	Limit value (ppm)	20 ppm
Belgium	Short time value (mg/m ³)	250 mg/m ³
Belgium	Short time value (ppm)	50 ppm
Bulgaria	OEL TWA (mg/m ³)	100 mg/m ³
Bulgaria	OEL TWA (ppm)	20 ppm
Bulgaria	OEL STEL (mg/m ³)	250 mg/m ³
Bulgaria	OEL STEL (ppm)	50 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	100 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	20 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³)	250 mg/m ³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	50 ppm
Cyprus	OEL TWA (mg/m ³)	100 mg/m ³
Cyprus	OEL TWA (ppm)	20 ppm
Cyprus	OEL STEL (mg/m ³)	250 mg/m ³
Cyprus	OEL STEL (ppm)	50 ppm
Czech Republic	Expoziční limity (PEL) (mg/m ³)	100 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	100 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	20 ppm
Estonia	OEL TWA (mg/m ³)	100 mg/m ³
Estonia	OEL TWA (ppm)	20 ppm
Estonia	OEL STEL (mg/m ³)	250 mg/m ³

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Cumene (98-82-8)		
Estonia	OEL STEL (ppm)	50 ppm
Finland	HTP-arvo (8h) (mg/m³)	100 mg/m³
Finland	HTP-arvo (8h) (ppm)	20 ppm
Finland	HTP-arvo (15 min)	250 mg/m³
Finland	HTP-arvo (15 min) (ppm)	50 ppm
France	Local name	Cumène
France	VME (mg/m³)	100 mg/m³
France	VME (ppm)	20 ppm
France	VLE (mg/m³)	250 mg/m³
France	VLE (ppm)	50 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	50 mg/m³ (The risk of damage to the embryo or foetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	10 ppm (The risk of damage to the embryo or foetus can be excluded when MAK and BAT values are observed)
Germany	TRGS 903 (BGW)	10 mg/g (Medium: urine - Time: end of shift - Parameter: 2-Phenyl-2-propanol (after hydrolyse) (measured as mg/g creatinine)
Gibraltar	OEL TWA (mg/m³)	100 mg/m³
Gibraltar	OEL TWA (ppm)	20 ppm
Gibraltar	OEL STEL (mg/m³)	250 mg/m³
Gibraltar	OEL STEL (ppm)	50 ppm
Greece	OEL TWA (mg/m³)	245 mg/m³
Greece	OEL TWA (ppm)	50 ppm
Greece	OEL STEL (mg/m³)	370 mg/m³
Greece	OEL STEL (ppm)	75 ppm
Hungary	AK-érték	100 mg/m³
Hungary	CK-érték	250 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	100 mg/m³
Ireland	OEL (8 hours ref) (ppm)	20 ppm
Ireland	OEL (15 min ref) (mg/m³)	250 mg/m³
Ireland	OEL (15 min ref) (ppm)	50 ppm
Italy	OEL TWA (mg/m³)	100 mg/m³
Italy	OEL TWA (ppm)	20 ppm
Italy	OEL STEL (mg/m³)	250 mg/m³
Italy	OEL STEL (ppm)	50 ppm
Latvia	OEL TWA (mg/m³)	100 mg/m³
Latvia	OEL TWA (ppm)	20 ppm
Lithuania	IPRV (mg/m³)	120 mg/m³
Lithuania	IPRV (ppm)	25 ppm
Lithuania	TPRV (mg/m³)	170 mg/m³
Lithuania	TPRV (ppm)	35 ppm
Luxembourg	OEL TWA (mg/m³)	100 mg/m³
Luxembourg	OEL TWA (ppm)	20 ppm
Luxembourg	OEL STEL (mg/m³)	250 mg/m³
Luxembourg	OEL STEL (ppm)	50 ppm
Malta	OEL TWA (mg/m³)	100 mg/m³
Malta	OEL TWA (ppm)	20 ppm
Malta	OEL STEL (mg/m³)	250 mg/m³
Malta	OEL STEL (ppm)	50 ppm
Netherlands	Grenswaarde TGG 8H (mg/m³)	100 mg/m³
Netherlands	Grenswaarde TGG 15MIN (mg/m³)	250 mg/m³
Poland	NDS (mg/m³)	100 mg/m³

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Cumene (98-82-8)		
Poland	NDSCh (mg/m ³)	250 mg/m ³
Portugal	OEL TWA (mg/m ³)	100 mg/m ³ (indicative limit value)
Portugal	OEL TWA (ppm)	20 ppm (indicative limit value)
Portugal	OEL STEL (mg/m ³)	250 mg/m ³ (indicative limit value)
Portugal	OEL STEL (ppm)	50 ppm (indicative limit value)
Romania	OEL TWA (mg/m ³)	100 mg/m ³
Romania	OEL TWA (ppm)	20 ppm
Romania	OEL STEL (mg/m ³)	150 mg/m ³
Romania	OEL STEL (ppm)	30 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	100 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Slovakia	NPHV (Hraničná) (mg/m ³)	250 mg/m ³
Slovenia	OEL TWA (mg/m ³)	100 mg/m ³
Slovenia	OEL TWA (ppm)	20 ppm
Slovenia	OEL STEL (mg/m ³)	250 mg/m ³
Slovenia	OEL STEL (ppm)	50 ppm
Spain	VLA-ED (mg/m ³)	100 mg/m ³ (indicative limit value)
Spain	VLA-ED (ppm)	20 ppm (indicative limit value)
Spain	VLA-EC (mg/m ³)	250 mg/m ³
Spain	VLA-EC (ppm)	50 ppm
Sweden	nivågränsvärde (NVG) (mg/m ³)	120 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	25 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	170 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	35 ppm
United Kingdom	Local name	Cumene
United Kingdom	WEL TWA (mg/m ³)	125 mg/m ³
United Kingdom	WEL TWA (ppm)	25 ppm
United Kingdom	WEL STEL (mg/m ³)	250 mg/m ³
United Kingdom	WEL STEL (ppm)	50 ppm
United Kingdom	Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
USA - ACGIH	ACGIH TWA (ppm)	50 ppm
USA - ACGIH	Remark (ACGIH)	Eye, skin, & URT irr; CNS impair
1,2,3-Trimethylbenzene (526-73-8)		
EU	Local name	1,2,3-Trimethylbenzene
EU	IOELV TWA (mg/m ³)	100 mg/m ³
EU	IOELV TWA (ppm)	20 ppm
Austria	MAK (mg/m ³)	100 mg/m ³
Austria	MAK (ppm)	20 ppm
Austria	MAK Short time value (mg/m ³)	150 mg/m ³
Austria	MAK Short time value (ppm)	30 ppm
Bulgaria	OEL TWA (mg/m ³)	100.0 mg/m ³
Bulgaria	OEL TWA (ppm)	20 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	100 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	20 ppm
Cyprus	OEL TWA (mg/m ³)	100 mg/m ³
Cyprus	OEL TWA (ppm)	20 ppm
Czech Republic	Expoziční limity (PEL) (mg/m ³)	100 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	100 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	20 ppm
Estonia	OEL TWA (mg/m ³)	100 mg/m ³
Estonia	OEL TWA (ppm)	20 ppm
Finland	HTP-arvo (8h) (mg/m ³)	100 mg/m ³

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1,2,3-Trimethylbenzene (526-73-8)		
Finland	HTP-arvo (8h) (ppm)	20 ppm
France	Local name	1,2,3-Triméthylbenzène
France	VME (mg/m³)	100 mg/m³
France	VME (ppm)	20 ppm
France	VLE (mg/m³)	250 mg/m³
France	VLE (ppm)	50 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	100 mg/m³ (The risk of damage to the embryo or foetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	20 ppm (The risk of damage to the embryo or foetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 903 (BGW)	400 mg/g (Medium: urine - Time: end of shift - Parameter: Dimethylbenzoic acid (sum of all isomers after hydrolysis) 400 mg/g (Medium: urine - Time: end of several shifts - Parameter: Dimethylbenzoic acid (sum of all isomers after hydrolysis))
Gibraltar	OEL TWA (mg/m³)	100 mg/m³
Gibraltar	OEL TWA (ppm)	20 ppm
Greece	OEL TWA (mg/m³)	125 mg/m³
Greece	OEL TWA (ppm)	25 ppm
Hungary	AK-érték	100 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	100 mg/m³
Ireland	OEL (8 hours ref) (ppm)	20 ppm
Ireland	OEL (15 min ref) (mg/m³)	300 mg/m³ (calculated)
Ireland	OEL (15 min ref) (ppm)	60 ppm (calculated)
Italy	OEL TWA (mg/m³)	100 mg/m³
Italy	OEL TWA (ppm)	20 ppm
Latvia	OEL TWA (mg/m³)	100 mg/m³
Latvia	OEL TWA (ppm)	20 ppm
Luxembourg	OEL TWA (mg/m³)	100 mg/m³
Luxembourg	OEL TWA (ppm)	20 ppm
Malta	OEL TWA (mg/m³)	100 mg/m³
Malta	OEL TWA (ppm)	20 ppm
Netherlands	Grenswaarde TGG 8H (mg/m³)	100 mg/m³
Netherlands	Grenswaarde TGG 15MIN (mg/m³)	200 mg/m³
Poland	NDS (mg/m³)	100 mg/m³
Poland	NDSch (mg/m³)	170 mg/m³
Portugal	OEL TWA (mg/m³)	100 mg/m³ (indicative limit value)
Portugal	OEL TWA (ppm)	20 ppm (indicative limit value)
Romania	OEL TWA (mg/m³)	100 mg/m³
Romania	OEL TWA (ppm)	20 ppm
Slovakia	NPHV (priemerná) (mg/m³)	100 mg/m³
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Slovakia	NPHV (Hraničná) (mg/m³)	200 mg/m³
Slovenia	OEL TWA (mg/m³)	100 mg/m³
Slovenia	OEL TWA (ppm)	20 ppm
Spain	VLA-ED (mg/m³)	100 mg/m³ (indicative limit value)
Spain	VLA-ED (ppm)	20 ppm (indicative limit value)
Sweden	nivågränsvärde (NVG) (mg/m³)	120 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	25 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	170 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	35 ppm

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8.2. Exposure controls

Appropriate engineering controls	: Avoid the formation of mists in the atmosphere. Carry out operations in the open/under local exhaust/ventilation or with respiratory protection. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Hand protection	: Impermeable protective gloves. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: Characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not available
Boiling point	: 130 - 220 °C
Flash point	: 39 - 46 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Flammability (solid, gas)	: Flammable liquid and vapour
Vapour pressure	: < 0,1 kPa
Relative vapour density at 20 °C	: Not available
Relative density	: 0,91 – 0,94
Solubility	: Water: Insoluble Organic solvent: completely soluble
Log Pow	: Not available
Viscosity, kinematic	: Not available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use. Stable under normal conditions of use.

10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

o-Xylene (95-47-6)	
LD50 oral rat	3608 mg/kg
LD50 dermal rabbit	14100 mg/kg
LC50 inhalation rat (ppm)	4330 ppm (Exposure time: 6 h)

n-Propylbenzene (103-65-1)	
LD50 oral rat	6040 mg/kg
LC50 inhalation rat (ppm)	65000 ppm (Exposure time: 2 h)

p-Ethyltoluene (622-96-8)	
LD50 oral rat	4850 mg/kg

Benzene, 1,2,4-trimethyl- (95-63-6)	
LD50 oral rat	3280 mg/kg
LD50 dermal rabbit	> 3160 mg/kg
LC50 inhalation rat (mg/l)	18 g/m ³ (Exposure time: 4 h)

Cumene (98-82-8)	
LD50 oral rat	1400 mg/kg
LD50 dermal rabbit	12300 µl/kg
LC50 inhalation rat (ppm)	> 3577 ppm (Exposure time: 6 h)

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life. May cause long lasting harmful effects to aquatic life.

o-Xylene (95-47-6)	
LC50 fish 1	11.6 - 22.4 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	3.2 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	11.6 - 22.4 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
EC50 Daphnia 2	2.61 - 5.59 mg/l (Exposure time: 48 h - Species: Daphnia magna [Flow through])

Benzene, 1,2,4-trimethyl- (95-63-6)	
LC50 fish 1	7.19 - 8.28 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Cumene (98-82-8)	
LC50 fish 1	6.04 - 6.61 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	0.6 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	4.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 2	7.9 - 14.1 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

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Log Pow	Not available
o-Xylene (95-47-6)	
BCF fish 1	21.4 (xylene from crude oil)
Log Pow	3.12

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n-Propylbenzene (103-65-1)	
Log Pow	3.68
Benzene, 1,2,4-trimethyl- (95-63-6)	
Log Pow	3.63
Cumene (98-82-8)	
BCF fish 1	35.5
Log Pow	3.55 (at 23 °C)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with applicable local, national and international regulation.

Additional information : Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

Classification for ROAD and RAIL transport: ADR/RID

14.1 UN Number : UN3295

14.2 Proper Shipping Name : HYDROCARBONS, LIQUID, N.O.S. (m-Ethyltoluene, o-Xylene)

14.3 Class / Division : 3

14.4 Packing group : III

14.5 Environmental hazards : Product not considered environmentally hazardous based on available data

14.6 Special precautions for user : Hazard identification number: 30

Classification for SEA transport: IMO - IMDG

14.1 UN Number : UN3295

14.2 Proper Shipping Name : HYDROCARBONS, LIQUID, N.O.S. (m-Ethyltoluene, o-Xylene)

14.3 Class / Division : 3

14.4 Packing group : III

14.5 Environmental hazards : Product not considered marine pollutant based on available data

14.6 Special precautions for user : No additional information available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Product name : Alkyl (C3–C4) benzenes (n)

Classification for AIR transport: IATA - ICAO

14.1 UN Number : UN3295

14.2 Proper Shipping Name : Hydrocarbons, liquid, n.o.s. (m-Ethyltoluene, o-Xylene)

14.3 Class / Division : 3

14.4 Packing group : III

14.5 Environmental hazards : Product not considered environmentally hazardous based on available data

14.6 Special precautions for user : No additional information available

This information does not intend to convey all specific regulatory or operational requirements/information relating to the product, therefore it cannot be considered exhaustive. Consult ADR, RID, IMO and ICAO regulations before transporting the product. It is responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

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Pyrolysis C9 is not on the REACH Candidate List
Pyrolysis C9 is not on the REACH Annex XIV List

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes : 3. Composition/information on ingredients
Sources of Key data : Data arise from reference works and literature.
Other information : None.

Full text of R-, H- and EUH-statements:

Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H412	Harmful to aquatic life with long lasting effects

Braskem - SDS EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. It warns that the handling of any chemical substance requires the previous knowledge of its hazards for the user. It is up to the user of the product company providing this SDS to and promote the training of its employees about possible risks come upon of the product. The information contained herein is not absolute, but only general information on the use of the chemical and indication of safety and security measures.