

SECTION 1: Identification of Product and Company

1.1. Product identifier

Trade name	: Braskem Ezolem™ 6-13
Chemical name	: Naphtha (petroleum), solvent-refined light
Product code	: P488B, P488BB1, P488C, P488
Recommended use	: Adhesives, Paints Product for industrial use only

1.2. Company identification

Supplier:
Braskem S.A.
Rua Eteno, 1561, Polo Petroquímico de Camaçari
Camaçari, BA, CEP: 42810-000, Brasil
Telephone: +55 (71) 3413-3600

productsafety@braskem.com

Emergency number	: CHEMTREC Brazil (Rio De Janeiro): +(55)-2139581449 Portuguese CHEMTREC Brazil (São Paulo): +(55)-1143491359 Portuguese CHEMTREC Brazil: 0800 892 0479 Portuguese CHEMTREC International: +1 703 527 3887
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to GHS BR (ABNT NBR 14725)

Flammable liquids, Category 2
Acute toxicity (dermal), Category 5
Skin corrosion/irritation, Category 2
Reproductive toxicity, Category 2
Specific target organ toxicity – Single exposure, Category 3, Narcosis
Aspiration hazard, Category 1
Hazardous to the aquatic environment – Acute Hazard, Category 2
Hazardous to the aquatic environment – Chronic Hazard, Category 1

2.2. Label elements

GHS BR labelling

Hazard pictograms (GHS BR)



Signal word (GHS BR)

: Danger

Hazard statements (GHS BR)

: H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H313 - May be harmful in contact with skin
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H361 - Suspected of damaging fertility or the unborn child.
H401 - Toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects.

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
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/ventilating/lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing mist, vapours.
P264 - Wash hands thoroughly after handling.

Precautionary statements (GHS BR)

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P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear eye protection, protective gloves, protective clothing
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P331 - Do NOT induce vomiting.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use foam, dry extinguishing powder, carbon dioxide (CO₂), sand, Water spray to extinguish.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards not contributing to the classification

Other hazards which do not result in classification : Handling this product may result in electrostatic accumulation. Use proper grounding procedures.

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Naphtha (petroleum), solvent-refined light
CAS-No. : 64741-84-0
EC-No. : 265-086-6
EC Index-No. : 649-278-00-0

Name	Product identifier	%
Heptane, isomers	CAS-No.: Not assigned	25 - 60
Hexane, isomers	CAS-No.: Not assigned	5 - 20
Octane, isomers	CAS-No.: Not assigned	5 - 38
n-hexane	CAS-No.: 110-54-3	4 - 9
Methylcyclopentane	CAS-No.: 96-37-7	0 - 4
2,4-dimethylhexane	CAS-No.: 589-43-5	0 - 3
cyclohexane	CAS-No.: 110-82-7	0 - 0.5
Heptane, 2,5-dimethyl-	CAS-No.: 2216-30-0	0 - 0.5
toluene	CAS-No.: 108-88-3	0 - 0.3

3.2. Mixtures

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). Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Do not apply mouth-to-mouth resuscitation. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Immediately rinse with plenty of water (for at least 15 minutes). Wash contaminated clothing before reuse. Get medical advice if skin irritation persists.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Seek medical attention if ill effect or irritation develops.

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First-aid measures after ingestion : Do not induce vomiting. Rinse mouth. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects : Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness.
Symptoms/effects after skin contact : Causes skin irritation. May be harmful in contact with skin.
Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis.

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

Note to physician : Treat symptomatically.

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 : Highly flammable liquid and vapour. Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.
Explosion hazard : Vapour heavier than air may travel considerable distance to a source of ignition and flash back. May explode or ignite :
Hazardous decomposition products in case of fire : Toxic fumes may be released. Thermal decomposition can lead to the release of irritating gases and vapours.

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 the environment.
Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with spilled material. Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Wear suitable protective clothing. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Avoid contact with skin. Avoid breathing mist or vapour.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Ventilate area. Stop leak if safe to do so. No open flames, no sparks, and no smoking. Avoid contact with skin. Avoid breathing mist or vapour.

6.2. Environmental precautions

Avoid release to the environment. 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 any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leaks if it can be done without personal risk. Control the vapours with a fine water spray. Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handling this product may result in electrostatic accumulation. Use proper grounding procedures. Handle empty containers with care because residual vapours are flammable.

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Precautions for safe handling	: Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid ignition sources. Product can accumulate electrostatic charges that may cause fire by electrical discharges. Use only non-sparking tools. Use grounded electrical/mechanical equipment. Spilled product must never be returned to the original container for recycling. No open flames. No smoking. Wash contaminated clothing before reuse. Avoid contact with skin. Avoid breathing mist or vapour.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep away from sources of ignition. Use only in well ventilated areas. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical/ventilating/lighting equipment.
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : heat. Keep container closed when not in use. Keep container tightly closed. Keep away from ignition sources. Store in a well-ventilated place. Keep cool. Store locked up.
Incompatible materials	: Strong oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Heptane, isomers (CAS-No.: Not assigned)	
Brazil - Occupational Exposure Limits	
OEL TWA [ppm]	400 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	400 ppm
ACGIH OEL STEL [ppm]	500 ppm
Remark (ACGIH)	TLV® Basis: CNS impair; URT irr
Regulatory reference	ACGIH 2023
Hexane, isomers (CAS-No.: Not assigned)	
Brazil - Occupational Exposure Limits	
OEL TWA [ppm]	500 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	500 ppm
ACGIH OEL STEL [ppm]	1000 ppm
Remark (ACGIH)	TLV® Basis: CNS impair; URT & eye irr
Regulatory reference	ACGIH 2023
Octane, isomers (CAS-No.: Not assigned)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Octane, all isomers
ACGIH OEL TWA	1400 mg/m³
ACGIH OEL TWA [ppm]	300 ppm
Remark (ACGIH)	TLV® Basis: URT irr
Regulatory reference	ACGIH 2023
n-hexane (110-54-3)	
Brazil - Occupational Exposure Limits	
OEL TWA [ppm]	50 ppm

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n-hexane (110-54-3)	
Brazil - Biological limit values	
Local name	n-hexano
BEI	0.5 mg/l Parâmetro: 2,5 hexanodiona (2,5HD) - Meio: Urina - Momento de amostragem: Final de jornada de trabalho - Observações: O método analítico deve ser realizado sem hidrólise para este IBE/EE.
Remark	Interpretação: IBE/EE - Indicadores Biológicos de Exposição Excessiva.
Regulatory reference	NR 7 - PCMSO
USA - ACGIH - Occupational Exposure Limits	
Local name	n-Hexane
ACGIH OEL TWA [ppm]	50 ppm
Remark (ACGIH)	TLV® Basis: CNS impair; peripheral neuropathy; eye irr. Notations: Skin; BEI
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
Regulatory reference	ACGIH 2023
USA - ACGIH - Biological Exposure Indices	
Local name	n-HEXANE
BEI	0.5 mg/l Parameter: 2,5-Hexanedione (without hydrolysis) - Medium: urine - Sampling time: End of shift
Regulatory reference	ACGIH 2023
cyclohexane (110-82-7)	
Brazil - Occupational Exposure Limits	
Local name	Ciclohexano
OEL TWA	820 mg/m ³
OEL TWA [ppm]	235 ppm
Regulatory reference	Norma Regulamentadora Nº 15 - Atividades e Operações Insalubres
USA - ACGIH - Occupational Exposure Limits	
Local name	Cyclohexane
ACGIH OEL TWA [ppm]	100 ppm
Remark (ACGIH)	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2023
USA - ACGIH - Biological Exposure Indices	
Local name	CYCLOHEXANE
BEI	50 mg/g creatinine Parameter: 1,2-Cyclohexanediol - Medium: urine - Sampling time: End of shift, end of workweek - Notations: Ns
Regulatory reference	ACGIH 2023
toluene (108-88-3)	
Brazil - Occupational Exposure Limits	
Local name	Tolueno (toluol)
OEL TWA	290 mg/m ³
OEL TWA [ppm]	78 ppm
Remark (NR-15)	Absorção também p/pele
Chemical category	skin designation{0}

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toluene (108-88-3)	
Regulatory reference	Norma Regulamentadora Nº 15 - Atividades e Operações Insalubres
Brazil - Biological limit values	
Local name	Tolueno
BEI	0.02 mg/l Parâmetro: Tolueno - Meio: Sangue - Momento de amostragem: Início da última jornada de trabalho da semana. 0.03 mg/l Parâmetro: Tolueno - Meio: Urina - Momento de amostragem: Final de jornada de trabalho. 0.3 mg/g creatinine Parâmetro: Orto-cresol - Meio: Urina - Momento de amostragem: Final de jornada de trabalho - Observações: Encontrado em populações não expostas ocupacionalmente. Método analítico exige hidrólise para este IBE/EE.
Remark	Interpretação: IBE/EE - Indicadores Biológicos de Exposição Excessiva.
Regulatory reference	NR 7 - PCMSO
USA - ACGIH - Occupational Exposure Limits	
Local name	Toluene
ACGIH OEL TWA [ppm]	20 ppm
Remark (ACGIH)	TLV® Basis: CNS, visual & hearing impair; female repro system eff; pregnancy loss. Notations: OTO; A4 (Not classifiable as a Human Carcinogen); BEI
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2023
USA - ACGIH - Biological Exposure Indices	
Local name	TOLUENE
BEI	0.02 mg/l Parameter: Toluene - Medium: blood - Sampling time: prior to last shift of workweek 0.03 mg/l Parameter: Toluene - Medium: urine - Sampling time: end of shift 0.3 mg/g creatinine Parameter: o-Cresol with hydrolysis - Medium: urine - Sampling time: end of shift (background)
Regulatory reference	ACGIH 2023

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Protective gloves made of rubber or PVC. It is recommended that the glove supplier be consulted to ensure the protective gloves are resistant to chemicals in this product

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where excessive vapour may result, wear approved mask

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Colour	: Colourless to slightly yellow
Odour	: gasoline-like
Odour threshold	: Not available
pH	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: 60 – 135 °C
Flash point	: -45 – -38 °C
Evaporation rate	: 4.47
Flammability	: Not available
Explosive limits	: Not available
Vapour pressure	: 3.13 psi @ 20°C
Relative vapour density at 20°C	: 3 – 4
Relative density	: 0.67 – 0.7 g/cm ³ @ 20°C
Solubility	: organic solvent.
Partition coefficient n-octanol/water (Log Pow)	: 2.723
Partition coefficient n-octanol/water (Log Kow)	: Not available
Auto-ignition temperature	: 280 – 465 °C
Decomposition temperature	: Not available
Viscosity, kinematic	: 0.35 – 0.45 mm ² /s
Viscosity, dynamic	: 0.5 – 0.65 mPa·s

9.2. Other information

Additional information	: Upper flammability or explosive limits: 7.6% Lower flammability or explosive limits: 1.4%
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SECTION 10: Stability and reactivity

Chemical stability	: The product is stable at normal handling and storage conditions.
Conditions to avoid	: Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition can lead to the release of irritating gases and vapours.
Incompatible materials	: Strong oxidizing agents.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not available
Acute toxicity (dermal)	: May be harmful in contact with skin.
Acute toxicity (inhalation)	: Not available

Naphtha (petroleum), solvent-refined light (64741-84-0)	
LD50 oral rat	> 7000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	43767 mg/m ³ (Exposure time: 4 h)
Heptane, isomers (CAS-No.: Not assigned)	
LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight
Hexane, isomers (CAS-No.: Not assigned)	
LD50 dermal rabbit	> 5 ml/kg
LC50 Inhalation - Rat	259354 mg/m ³ (Exposure time: 4 h)

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Hexane, isomers (CAS-No.: Not assigned)	
ATE BR (vapours)	259.354 mg/l/4h
ATE BR (dust,mist)	259.354 mg/l/4h
Octane, isomers (CAS-No.: Not assigned)	
LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat	> 24.88 mg/l air
LC50 Inhalation - Rat (Dust/Mist)	118 mg/l/4h
LC50 Inhalation - Rat (Vapours)	> 24.88 mg/l
n-hexane (110-54-3)	
LD50 oral rat	25 g/kg
LD50 dermal rabbit	3000 mg/kg
LC50 Inhalation - Rat [ppm]	48000 ppm/4h
ATE BR (oral)	25000 mg/kg bodyweight
ATE BR (dermal)	3000 mg/kg bodyweight
ATE BR (gases)	48000 ppmv/4h
cyclohexane (110-82-7)	
LD50 oral rat	12705 mg/kg
LD50 oral	> 5000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg
LD50 dermal	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat	> 32.88 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat [ppm]	> 5540 ppm Source: ECHA
ATE BR (oral)	12705 mg/kg bodyweight
toluene (108-88-3)	
LD50 oral rat	2600 mg/kg
LD50 oral	5000 mg/kg
LD50 dermal rabbit	12000 mg/kg
LD50 dermal	12124 mg/kg bodyweight
LC50 Inhalation - Rat	12.5 mg/l/4h
LC50 Inhalation - Rat (Dust/Mist)	28100 mg/l
LC50 Inhalation - Rat (Vapours)	12.5 mg/l/4h
ATE BR (oral)	2600 mg/kg bodyweight
ATE BR (dermal)	12000 mg/kg bodyweight
ATE BR (vapours)	12.5 mg/l/4h
ATE BR (dust,mist)	12.5 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not available
Respiratory or skin sensitisation	: Not available
Germ cell mutagenicity	: Not available
Carcinogenicity	: Not available

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toluene (108-88-3)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: May cause drowsiness or dizziness.
Heptane, isomers (CAS-No.: Not assigned)	
STOT-single exposure	May cause drowsiness or dizziness.
Hexane, isomers (CAS-No.: Not assigned)	
STOT-single exposure	May cause drowsiness or dizziness.
Octane, isomers (CAS-No.: Not assigned)	
STOT-single exposure	May cause drowsiness or dizziness.
n-hexane (110-54-3)	
STOT-single exposure	May cause drowsiness or dizziness.
Methylcyclopentane (96-37-7)	
STOT-single exposure	May cause drowsiness or dizziness.
2,4-dimethylhexane (589-43-5)	
STOT-single exposure	May cause drowsiness or dizziness.
cyclohexane (110-82-7)	
STOT-single exposure	May cause drowsiness or dizziness.
toluene (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: Not available
Heptane, isomers (CAS-No.: Not assigned)	
LOAEC (inhalation, rat, vapour, 90 days)	16.6 mg/l air
NOAEC (inhalation, rat, vapour, 90 days)	3.3 mg/l air
Octane, isomers (CAS-No.: Not assigned)	
NOAEC (inhalation, rat, vapour, 90 days)	24.3 mg/l air
n-hexane (110-54-3)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
toluene (108-88-3)	
LOAEL (oral, rat, 90 days)	1250 mg/kg bodyweight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	625 mg/kg bodyweight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, vapour, 90 days)	2.355 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.
11.2. Most important symptoms and effects, both acute and delayed	
Symptoms/effects	: Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Causes skin irritation. May be harmful in contact with skin.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis.

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SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

Other information : Avoid release to the environment.

Naphtha (petroleum), solvent-refined light (64741-84-0)	
LC50 - Fish [1]	4.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
EC50 - Crustacea [1]	9.74 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 - Fish [2]	8.41 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static, closed])
Heptane, isomers (CAS-No.: Not assigned)	
EC50 - Crustacea [1]	1.5 mg/l Test organisms (species): Daphnia magna
LOEC (chronic)	0.32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.17 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
Octane, isomers (CAS-No.: Not assigned)	
LC50 - Fish [1]	0.885 mg/l
EC50 - Crustacea [1]	0.3 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.9 mg/l Source: ECHA
LOEC (chronic)	0.32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.17 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	0.028 mg/l
Partition coefficient n-octanol/water (Log Pow)	5.18 Source: HSDB
n-hexane (110-54-3)	
LC50 - Fish [1]	2.5 mg/l
EC50 - Other aquatic organisms [1]	50 mg/l waterflea
cyclohexane (110-82-7)	
LC50 - Fish [1]	3.96 – 5.18 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 - Fish [2]	23.03 – 42.07 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 72h - Algae [1]	> 500 mg/l (Species: Desmodesmus subspicatus)
EC50 72h - Algae [2]	9.317 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
toluene (108-88-3)	
LC50 - Fish [1]	15.22 – 19.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	5.46 – 9.83 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 - Other aquatic organisms [1]	3.78 mg/l waterflea
LC50 - Fish [2]	12.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [2]	11.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	12.5 mg/l (Species: Pseudokirchneriella subcapitata [static])
EC50 96h - Algae [1]	> 433 mg/l (Species: Pseudokirchneriella subcapitata)
LOEC (chronic)	2.76 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.74 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'

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toluene (108-88-3)	
NOEC chronic fish	1.39 mg/l Test organisms (species): Oncorhynchus kisutch Duration: '40 d'
NOEC chronic crustacea	0.74 mg/l

12.2. Persistence and degradability

Naphtha (petroleum), solvent-refined light (64741-84-0)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Naphtha (petroleum), solvent-refined light (64741-84-0)	
Partition coefficient n-octanol/water (Log Pow)	2.723
Bioaccumulative potential	Not established.

Hexane, isomers (CAS-No.: Not assigned)	
Partition coefficient n-octanol/water (Log Pow)	3.8

n-hexane (110-54-3)	
Partition coefficient n-octanol/water (Log Pow)	3.9

cyclohexane (110-82-7)	
Partition coefficient n-octanol/water (Log Pow)	3.44 (at 25 °C (at pH 7))

toluene (108-88-3)	
Partition coefficient n-octanol/water (Log Pow)	2.73 (at 20 °C (at pH 7))

12.4. Mobility in soil

n-hexane (110-54-3)	
Mobility in soil	2187.76 Source: ECHA

12.5. Other adverse effects

Hazardous to the ozone layer : Not available
Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose of in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1 National and international Regulations

Road and Rail Transport - ANTT

UN Number : UN1268
Proper shipping name : PETROLEUM DISTILLATES, N.O.S. (Naphtha (petroleum), solvent-refined light)
Transport Hazard class(es) : 3
Packing group : II
Hazard Identification Number : 33
Environmental hazards : Very toxic to aquatic life with long lasting effects

Maritime Transport - IMDG

UN Number : UN1268
Proper shipping name : PETROLEUM DISTILLATES, N.O.S. (Naphtha (petroleum), solvent-refined light)
Transport hazard class(es) : 3
Packing group : II
Environmental hazards : Very toxic to aquatic life with long lasting effects
Marine Pollutant : Yes
Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code:
Product name : Not available. Consult IMO guidelines before transporting in bulk

Air Transport - IATA

UN Number : UN1268
Proper shipping name : Petroleum distillates, n.o.s. (Naphtha (petroleum), solvent-refined light)

Braskem Ezolem™ 6-13

Safety Data Sheet

According to ABNT NBR 14725-4

Transport hazard class(es)	: 3
Packing group	: II
Environmental hazards	: Very toxic to aquatic life with long lasting effects

14.2 Other information

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 ANTT, IMO and ICAO regulations before transporting the product. It is the 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. National regulations

Regulatory reference	: Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on the Canadian DSL (Domestic Substances List) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on the TCSI (Taiwan Chemical Substance Inventory) Listed on the NCI (Vietnam - National Chemical Inventory)
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SECTION 16: Other information

Other information	: None.
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Braskem - SDS_Brazil (modified 230209)

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.