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

1.1 Product identifier

Primer 160

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

1.2.1 Relevant uses

Primer
Adhesion mediator

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Ramsauer GmbH & Co KG
Sarstein 17
4822 Bad Goisern / H. / AUSTRIA
Phone +43(0)6135 8205-0
Fax +43(0)6135 8205-250
Homepage www.ramsauer.at
E-mail office@ramsauer.at

Address enquiries to

Technical information office@ramsauer.at

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body Call NHS 111 or a doctor

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

Flam. Liq. 2: H225 Highly flammable liquid and vapour.
Repr. 2: H361d Suspected of damaging the unborn child.
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure.
Skin Irrit. 2: H315 Causes skin irritation.
STOT SE 3: H336 May cause drowsiness or dizziness.
Eye Irrit. 2: H319 Causes serious eye irritation.

2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

Hazard pictograms

Signal word DANGER

Contains: Toluene

Hazard statements
H225 Highly flammable liquid and vapour.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H319 Causes serious eye irritation.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe vapours.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/national regulation.

Special labelling Contains: Methyl methacrylate, Butyl methacrylate. EUH208 May produce an allergic reaction.

2.3 Other hazards

Physico-chemical hazards Contact with moisture liberates Methanol.

Environmental hazards Does not contain any PBT or vPvB substances.
Contains no ingredients with endocrine-disrupting properties.

Other hazards Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
50 - <75	Toluene
	CAS: 108-88-3, EINECS/ELINCS: 203-625-9, EU-INDEX: 601-021-00-3, Reg-No.: 01-2119471310-51-XXXX
	GHS/CLP: Flam. Liq. 2: H225 - Repr. 2: H361d - Asp. Tox. 1: H304 - STOT RE 2: H373 - Skin Irrit. 2: H315 - STOT SE 3: H336
<3	Butan-1-ol
	CAS: 71-36-3, EINECS/ELINCS: 200-751-6, EU-INDEX: 603-004-00-6, Reg-No.: 01-2119484630-38-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H302 - Eye Dam. 1: H318 - STOT SE 3: H336 - Skin Irrit. 2: H315 - STOT SE 3: H335
<1	Methyl methacrylate
	CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, Reg-No.: 01-2119452498-28-XXXX
	GHS/CLP: Flam. Liq. 2: H225 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - STOT SE 3: H335
<1	Butyl methacrylate
	CAS: 97-88-1, EINECS/ELINCS: 202-615-1, EU-INDEX: 607-033-00-5, Reg-No.: 01-2119486934-28-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Eye Irrit. 2: H319 - STOT SE 3: H335

Comment on component parts Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Remove contaminated soaked clothing immediately and dispose of safely.

Inhalation
Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact
In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

Eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion
Seek medical advice immediately.
Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Headache
Allergic reactions
Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide.
Water spray jet.
Dry powder.
Foam.

Extinguishing media that must not be used
Full water jet.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:
Carbon monoxide (CO)

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.
Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.
Ensure adequate ventilation.
Use personal protective equipment (protective gloves, safety glasses, protective clothing).
High risk of slipping due to leakage/spillage of product.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up with absorbent material (e.g. sand).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Vacuuming in situ required.

Keep away from all sources of ignition - Refrain from smoking.
Vapours can form an explosive mixture with air.
Take precautionary measures against static discharges.
Risk of explosion if the liquid enters the drains.
Connect equipment to earth.
Apparates and equipments must be conform in accordance to standard of storage and handling of flammable products.

Do not eat, drink, smoke or take drugs at work.
After worktime and before work breaks the affected skin areas must be thoroughly cleaned.
Use barrier skin cream.
Remove contaminated soaked clothing immediately and dispose of safely.

7.2 Conditions for safe storage, including any incompatibilities

Provide solvent-resistant and impermeable floor.
Keep only in original container.
Prevent penetration into the ground.
Provide floor with bunding.

Do not store together with oxidizing agents.

Keep container tightly closed.
Keep container in a well-ventilated place.
Keep in a cool place. Store in a dry place.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
Toluene
CAS: 108-88-3, EINECS/ELINCS: 203-625-9, EU-INDEX: 601-021-00-3, Reg-No.: 01-2119471310-51-XXXX
Long-term exposure: 50 ppm, 191 mg/m³, Sk
Short-term exposure (15-minute): 100 ppm, 384 mg/m³
Butan-1-ol
CAS: 71-36-3, EINECS/ELINCS: 200-751-6, EU-INDEX: 603-004-00-6, Reg-No.: 01-2119484630-38-XXXX
Long-term exposure: 50 ppm, Sk
Short-term exposure (15-minute): 50 ppm, 154 mg/m³
Methyl methacrylate
CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, Reg-No.: 01-2119452498-28-XXXX
Long-term exposure: 50 ppm, 208 mg/m³
Short-term exposure (15-minute): 100 ppm, 416 mg/m³
Methanol
CAS: 67-56-1, EINECS/ELINCS: 200-659-6, EU-INDEX: 603-001-00-X, Reg-No.: 01-2119433307-44-XXXX
Long-term exposure: 200 ppm, 266 mg/m³, Sk
Short-term exposure (15-minute): 250 ppm, 333 mg/m³

Ingredients with occupational exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES
Toluene
CAS: 108-88-3, EINECS/ELINCS: 203-625-9, EU-INDEX: 601-021-00-3, Reg-No.: 01-2119471310-51-XXXX
Eight hours: 50 ppm, 192 mg/m³, H
Short-term (15-minute): 100 ppm, 384 mg/m³
Methyl methacrylate
CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6, Reg-No.: 01-2119452498-28-XXXX
Eight hours: 50 ppm
Short-term (15-minute): 100 ppm
Methanol
CAS: 67-56-1, EINECS/ELINCS: 200-659-6, EU-INDEX: 603-001-00-X, Reg-No.: 01-2119433307-44-XXXX
Eight hours: 200 ppm, 260 mg/m³, H

DNEL

Substance
Methyl methacrylate, CAS: 80-62-6
Industrial, inhalative, Long-term - systemic effects, 348,4 mg/m³
Industrial, inhalative, Acute - local effects, 416 mg/m³
Industrial, inhalative, Long-term - local effects, 208 mg/m³
Industrial, dermal, Long-term - systemic effects, 13,67 mg/kg bw/d
Industrial, dermal, Long-term - local effects, 1,5 mg/cm²
Industrial, dermal, Acute - local effects, 1,5 mg/cm²
general population, dermal, Long-term - systemic effects, 8,2 mg/kg bw/d
general population, inhalative, Long-term - local effects, 104 mg/m³

general population, oral, Long-term - systemic effects, 8,2 mg/kg bw/day
general population, dermal, Long-term - local effects, 1,5 mg/cm²
general population, dermal, Acute - local effects, 1,5 mg/cm²
general population, inhalative, Acute - local effects, 208 mg/m³
general population, inhalative, Long-term - systemic effects, 74,3 mg/m³
Toluene, CAS: 108-88-3
Industrial, inhalative, Acute - local effects, 384 mg/m³
Industrial, inhalative, Long-term - systemic effects, 192 mg/m³
Industrial, inhalative, Long-term - local effects, 192 mg/m³
Industrial, dermal, Long-term - systemic effects, 384 mg/kg bw/day
Industrial, inhalative, Acute - systemic effects, 384 mg/m³
general population, inhalative, Acute - systemic effects, 226 mg/m³
general population, inhalative, Acute - local effects, 226 mg/m³
general population, dermal, Long-term - systemic effects, 226 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 56,5 mg/m³
general population, oral, Long-term - systemic effects, 8,13 mg/kg bw/day
Butan-1-ol, CAS: 71-36-3
Industrial, inhalative (vapor), Long-term - local effects, 310 mg/m³
general population, inhalative (vapor), Long-term - local effects, 155 mg/m³
general population, oral, Long-term - systemic effects, 1,562 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 3,125 mg/kg bw/day
general population, inhalative (vapor), Long-term - systemic effects, 55,357 mg/m³
Butyl methacrylate, CAS: 97-88-1
Industrial, dermal, Long-term - systemic effects, 5 mg/kg bw/day
Industrial, inhalative, Long-term - systemic effects, 415,9 mg/m³
Industrial, inhalative, Long-term - local effects, 409 mg/m³
general population, dermal, Long-term - systemic effects, 3 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 66,5 mg/m³

PNEC

Substance
Methyl methacrylate, CAS: 80-62-6
sediment (seawater), 1,48 mg/kg soil dw
freshwater, 0,94 mg/L
seawater, 0,094 mg/L
sewage treatment plants (STP), 10 mg/L
sediment (freshwater), 10,2 mg/kg sediment dw
sediment (seawater), 0,102 mg/kg sediment dw
Toluene, CAS: 108-88-3
seawater, 0,68 mg/L
freshwater, 0,68 mg/L
sediment (seawater), 16,39 mg/kg
sediment (freshwater), 16,39 mg/kg
sewage treatment plants (STP), 13,61 mg/L
soil, 2,89 mg/kg
Butan-1-ol, CAS: 71-36-3
seawater, 0,008 mg/l
sewage treatment plants (STP), 2476 mg/l
sediment (freshwater), 0,324 mg/kg

sediment (seawater), 0,032 mg/kg
soil, 0,017 mg/kg
freshwater, 0,082 mg/l
Butyl methacrylate, CAS: 97-88-1
freshwater, 0,017 mg/L
seawater, 0,002 mg/L
sewage treatment plants (STP), 31,7 mg/l
sediment (freshwater), 4,73 mg/kg
sediment (seawater), 0,473 mg/kg
soil, 0,935 mg/kg

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Tightly fitting goggles. (EN 166:2001)
Hand protection	0,7 mm Viton, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Solvent-resistant protective clothing (EN 340)
Other	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. It is essential for pregnant women to avoid inhaling the product and not to let it come in contact with the skin.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Multi-purpose filter ABEK. (DIN EN 14387)
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Color	colourless
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	111
Flash point [°C]	8 (DIN 51755)
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	1,2 Vol.%
Upper explosion limit	7,0 Vol.%
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	2,9 (20°C)
Density [g/cm³]	0,95 (DIN 51757) (25°C / 77,0°F)
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	virtually insoluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not determined
Kinematic viscosity	> 20,5 mm²/s (40 °C)
Relative vapour density	not determined
Evaporation speed	not determined
Melting point [°C]	not determined
Auto-ignition temperature	ca. 420 (DIN 51794)
Decomposition temperature [°C]	not determined
Particle characteristics	No information available.

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

The product is stable under standard conditions.

10.3 Possibility of hazardous reactions

Reactions with water.
Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.
Reactions with acids, alkalies and oxidizing agents.

10.4 Conditions to avoid

Strong heating.
Decomposes by hydrolysis.

10.5 Incompatible materials

Water
Reactions with strong acids and alkalies.

10.6 Hazardous decomposition products

Contact with moisture liberates Methanol.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity Based on available data, the classification criteria are not met.

Product
ATE-mix, oral, Rat, >2000 mg/kg bw

Substance
Methyl methacrylate, CAS: 80-62-6
LD50, oral, Rat, > 5000 mg/kg (OECD 401)
Toluene, CAS: 108-88-3
LD50, oral, Rat, 5580 mg/kg
Butan-1-ol, CAS: 71-36-3
LD50, oral, Rat (female), 2292 mg/kg bw, OECD 401
Butyl methacrylate, CAS: 97-88-1
LD50, oral, Rat, > 2000 mg/kg

Acute dermal toxicity Based on available data, the classification criteria are not met.

Substance
Methyl methacrylate, CAS: 80-62-6
LD50, dermal, Rabbit, > 5000 mg/kg
Toluene, CAS: 108-88-3
LD50, dermal, Rabbit, 12,124 mg/kg
Butan-1-ol, CAS: 71-36-3
LD50, dermal, Rabbit, 3400 mg/kg
Butyl methacrylate, CAS: 97-88-1
LD50, dermal, Rabbit, > 2000 mg/kg

Acute inhalational toxicity Based on available data, the classification criteria are not met.

Substance
Methyl methacrylate, CAS: 80-62-6
LC50, inhalative, Rat, 29,8 mg/l
Toluene, CAS: 108-88-3
LC50, inhalative, Rat, 25,7 mg/L (4h) (OECD 403)
Butan-1-ol, CAS: 71-36-3
LC50, inhalative, Rat, > 17,76 mg/l (4 h)

Serious eye damage/irritation Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
Irritant
Calculation method

Substance
Methyl methacrylate, CAS: 80-62-6
Eye, non-irritating
Toluene, CAS: 108-88-3
Eye, Rabbit, OECD 405, non-irritating
Butan-1-ol, CAS: 71-36-3
Eye, Rabbit, OECD 405, corrosive

Skin corrosion/irritation

Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
Irritant
Calculation method

Substance
Methyl methacrylate, CAS: 80-62-6
dermal, irritant
Toluene, CAS: 108-88-3
dermal, Rabbit, Study, irritant
Butan-1-ol, CAS: 71-36-3
dermal, Rabbit, irritant

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.
Toxicological data of complete product are not available.
Calculation method

Substance
Methyl methacrylate, CAS: 80-62-6
inhalative, no adverse effect observed
dermal, sensitising
Toluene, CAS: 108-88-3
No information available.
Butan-1-ol, CAS: 71-36-3
dermal, Mouse (female), OECD 429, non-sensitizing

Specific target organ toxicity — single exposure

Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
Vapours may cause drowsiness and dizziness.
Calculation method

Substance
Methyl methacrylate, CAS: 80-62-6
inhalative, irritant
Toluene, CAS: 108-88-3
positive

Specific target organ toxicity — repeated exposure

Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
May cause damage to organs through prolonged or repeated exposure through inhalation.
Calculation method

Substance
Methyl methacrylate, CAS: 80-62-6
NOAEL, oral, Rat, 124 mg/kg bw/day (chronic), no adverse effect observed
NOAEC, inhalative, Rat, 2080 mg/m³ (chronic), no adverse effect observed
Toluene, CAS: 108-88-3
positive
Butan-1-ol, CAS: 71-36-3
NOAEL, oral, Rat, 125 mg/kg bw/day, no adverse effect observed
NOAEC, inhalative, Rat, 1500 mg/m³, no adverse effect observed

Mutagenicity

Does not contain a relevant substance that meets the classification criteria.

Substance
Methyl methacrylate, CAS: 80-62-6
in vivo, no adverse effect observed

in vitro, The effects observed are not sufficient for classification.
Toluene, CAS: 108-88-3
mouse, Ames-test, negativ
Butan-1-ol, CAS: 71-36-3
in vivo, OECD 474, negativ
in vitro, OECD 476, negativ

Reproduction toxicity

Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
Suspected of damaging the unborn child.
Calculation method

Substance
Methyl methacrylate, CAS: 80-62-6
NOAEL, oral, Rabbit, 450 mg/kg bw/day (subacute), no adverse effect observed
NOAEC, inhalative, Rat, 8 300 mg/m³ (subacute), no adverse effect observed
Toluene, CAS: 108-88-3
inhalative, Rat, Study, positive
Butan-1-ol, CAS: 71-36-3
NOAEL, oral, Rat, 1454 mg/kg bw/day, OECD 414, adverse effect observed
NOAEL, oral, Rat, 500 mg/kg bw/day, no adverse effect observed
NOAEC, inhalative, Rat, 6189 mg/m³, no adverse effect observed

Carcinogenicity

Does not contain a relevant substance that meets the classification criteria.

Substance
Methyl methacrylate, CAS: 80-62-6
NOAEL, oral, Rat, 90,3 mg/kg bw/day (chronic), no adverse effect observed
NOAEC, inhalative, Rat, 2050 mg/m³ (chronic), no adverse effect observed

Aspiration hazard

Based on available data, the classification criteria are not met.
v > 20,5 mm²/s (40 °C)
No classification.
On basis of test data

General remarks

Toxicological data of complete product are not available.

11.2 Information on other hazards

Endocrine disrupting properties Contains no ingredients with endocrine-disrupting properties.

Other information none

SECTION 12: Ecological information

12.1 Toxicity

Substance
Methyl methacrylate, CAS: 80-62-6
LC50, (96h), Oncorhynchus mykiss, > 79 mg/l (OECD 203)
EC50, (48h), Daphnia magna, 69 mg/l (OECD 202)
EC50, (72h), Selenastrum capricornutum, > 110 mg/l (OECD 201)
NOEC, Danio rerio, 9,4 mg/l (OECD 210)
NOEC, (21d), Daphnia magna, 37 mg/l (OECD 202-2)
Toluene, CAS: 108-88-3
LC50, (96h), Oncorhynchus mykiss, 5,8 mg/L (ECOTOX- Database)
EC50, (24h), Pseudokirchneriella subcapitata, 10,00 mg/L
EC50, (48h), Daphnia magna, 6 mg/L
Butan-1-ol, CAS: 71-36-3
LC50, (96h), Scenedesmus subspicatus, > 500 mg/l
LC50, (96h), Pimephales promelas, 1376 mg/l
LC50, (96h), Leuciscus idus, 1200 mg/l
EC50, (48h), Daphnia magna, 1328 mg/l
EC50, (72h), Desmodesmus subspicatus, > 500 mg/l
EC50, Pseudomonas putida, 4400 mg/l (17 h)
Butyl methacrylate, CAS: 97-88-1
LC50, (96h), Pimephales promelas, 11 mg/l
EC50, (48h), Daphnia magna, 32 mg/l
EC50, (96h), Pseudokirchneriella subcapitata, 57 mg/l

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	Polymeric component: Not readily biodegradable.

12.3 Bioaccumulative potential

No evidence for bioaccumulation potential.

12.4 Mobility in soil

not determined

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

Ecological data of complete product are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.

Waste no. (recommended) 080111*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Waste no. (recommended) 150110* packaging containing residues of or contaminated by hazardous substances
150102

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID	1993
Inland navigation (ADN)	1993
Marine transport in accordance with IMDG	1993
Air transport in accordance with IATA	1993

14.2 UN proper shipping name

Transport by land according to ADR/RID	Flammable liquid, n.o.s. (Toluene, Butanols)
- Classification Code	F1
- Label	
- ADR LQ	1 l
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 2 (D/E)
Inland navigation (ADN)	Flammable liquid, n.o.s. (Toluene, Butanols)
- Classification Code	F1
- Label	
Marine transport in accordance with IMDG	Flammable liquid, n.o.s. (Toluene, Butanols)
- EMS	F-E, S-E
- Label	
- IMDG LQ	1 l
Air transport in accordance with IATA	Flammable liquid, n.o.s. (Toluene, Butanols mixture)
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	3
Inland navigation (ADN)	3
Marine transport in accordance with IMDG	3
Air transport in accordance with IATA	3

14.4 Packing group

Transport by land according to ADR/RID	II
Inland navigation (ADN)	II
Marine transport in accordance with IMDG	II
Air transport in accordance with IATA	II

14.5 Environmental hazards

Transport by land according to ADR/RID	no
Inland navigation (ADN)	no
Marine transport in accordance with IMDG	no
Air transport in accordance with IATA	no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not determined

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2021)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	Observe employment restrictions for young people. Observe employment restrictions for mothers-to-be and nursing mothers.
- VOC (2010/75/CE)	<80 %

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H318 Causes serious eye damage.
H302 Harmful if swallowed.
H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
H315 Causes skin irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H304 May be fatal if swallowed and enters airways.
H361d Suspected of damaging the unborn child.
H225 Highly flammable liquid and vapour.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Flam. Liq. 2: H225 Highly flammable liquid and vapour. (On basis of test data)
Repr. 2: H361d Suspected of damaging the unborn child. (Calculation method)
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Calculation method)
Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
STOT SE 3: H336 May cause drowsiness or dizziness. (Calculation method)
Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)

Modified position

SECTION 2 been added: Contains no ingredients with endocrine-disrupting properties.

SECTION 6 been added: Use personal protective equipment (protective gloves, safety glasses, protective clothing).

SECTION 11 been added: Contains no ingredients with endocrine-disrupting properties.

SECTION 11 been added: Based on available data, the classification criteria are not met.

SECTION 11 been added: Based on available data, the classification criteria are not met.

SECTION 11 been added: Based on available data, the classification criteria are not met.

SECTION 12 been added: Contains no ingredients with endocrine-disrupting properties.