Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Ethanol 1632T

Version number: 1.0 First version: 2018-09-07

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

1.1 Product identifier

Trade name	**Ethanol 1632T**
Other names or synonyms	Ethanol 99 % den. with 2 % Toluene
Registration number (REACH)	not relevant (mixture)
CAS number	not relevant (mixture)

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

Relevant identified uses	Chemical industry Solvents

1.3 Details of the supplier of the safety data sheet

BERGCHEMIE J.C.Bröcking & Co. GmbH
Rudolfstrasse 14
42285 Wuppertal
Germany

Telephone: ++49 (0) 202 - 45 60 60
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e-mail (competent person) sdb@csb-online.de

Please do not use this e-mail adress to ask for the latest safety data sheet. For this purpose contact BERGCHEMIE J.C.Bröcking & Co. GmbH.

1.4 Emergency telephone number

As above or next toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Classification

Section	Hazard class	Category	Hazard class and category	Hazard statement
2.6	flammable liquid	2	Flam. Liq. 2	H225
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319

for full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

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

Signal word danger

Pictograms

GHS02, GHS07

Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P243	Take action to prevent static discharges.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P235	Store in a well-ventilated place. Keep cool.

2.3 Other hazards

Vapours may form explosive mixtures with air.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Hazardous ingredients

Name of sub-stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes	Specific Conc. Limits
ethanol	CAS No 64-17-5 EC No 200-578-6	98	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319			Eye Irrit. 2; H319: C ≥ 50 %

Hazardous ingredients

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes	Specific Conc. Limits
	Index No 603-002-00-5 REACH Reg. No 01-2119457610-43					
toluene	CAS No 108-88-3 EC No 203-625-9 Index No 601-021-00-3	2	Flam. Liq. 2 / H225 Skin Irrit. 2 / H315 Repr. 2 / H361d STOT SE 3 / H336 STOT RE 2 / H373 Asp. Tox. 1 / H304		GHS-HC IOELV	

Notes

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

IOELV: Substance with a community indicative occupational exposure limit value

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Self-protection of the first aider.
Remove affected person from the danger area and lay down.
Do not leave affected person unattended.
Take off immediately all contaminated clothing.
In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air.
Mouth to mouth resuscitation should be avoided. Use alternative methods, preferably with oxygen or compressed air driven apparatus.
If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following skin contact

After contact with skin, wash immediately with plenty of water.
In all cases of doubt, or when symptoms persist, seek medical advice.

Following eye contact

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

Following ingestion

Rinse mouth immediately and drink plenty of water.
Do NOT induce vomiting.
Get medical advice/attention.

Notes for the doctor

none

4.2 Most important symptoms and effects, both acute and delayed

Irritating to eyes, respiratory system and skin.
Headache.
Vertigo.
Unconsciousness.
Disorientation.
Nausea.
Gastrointestinal complaints.
Vomiting.
Repeated exposure may cause skin dryness or cracking, preventive skin protection (barrier creams/ointments) is recommended.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water spray, alcohol resistant foam, fire extinguishing powder, carbon dioxide (CO2)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.
In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture.
Danger of bursting container.
Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.
Danger of bursting container.

Hazardous combustion products

Combustible / flammable vapors

5.3 Advice for firefighters

Keep containers cool with water spray.
In case of fire and/or explosion do not breathe fumes.
Co-ordinate firefighting measures to the fire surroundings.
Do not allow firefighting water to enter drains or water courses.
Collect contaminated firefighting water separately.
Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

chemical protection suit, wear self-contained breathing apparatus

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.
Ventilate affected area.
Avoid contact with eyes.
Avoid breathing mist/vapours/spray.
Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

In case of formation of gases/vapours/mists suppress with water spray
Keep away from drains, surface and ground water.
Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advices on how to clean up a spill

Collect spillage.
Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal.
Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5.
Personal protective equipment: see section 8.
Incompatible materials: see section 10.
Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes.
Do not breathe vapour/spray.
Do not use for squirting or spraying.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.
Keep away from sources of ignition - No smoking.
Take precautionary measures against static discharge.
Handle and open container with care.
Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.

Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.
Vapours may form explosive mixtures with air.

Handling of incompatible substances or mixtures

Keep away from

chlorine, nitric acid and nitrous acid, Store away from oxidizing agents.

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.
Wash hands after use.
Preventive skin protection (barrier creams/ointments) is recommended.
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Explosive atmospheres

Keep container tightly closed and in a well-ventilated place.
Use local and general ventilation.
Keep cool.
Protect from sunlight.

Flammability hazards

Keep away from sources of ignition - No smoking.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharge.
Ground/bond container and receiving equipment.
Protect from sunlight.

Incompatible substances or mixtures

Incompatible materials: see section 10.
Observe hints for combined storage.

Protect against external exposure, such as

heat, high temperatures, sunlight

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.
Store in a dry place. Store in a closed container.
Store in a well-ventilated place. Keep cool.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Storage temperature maximum storage temperature: 40 °C

Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.
Unsuitable materials: Aluminium, Aluminium compound.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Source
EU	toluene	108-88-3	IOELV	50	192	100	384	2017/2398/EU
GB	ethanol	64-17-5	WEL	1,000	1,920			EH40/2005

Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
ethanol	64-17-5	DNEL	950 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
ethanol	64-17-5	DNEL	343 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
ethanol	64-17-5	DNEL	114 mg/m³	human, inhalatory	consumer (private households)	chronic - systemic effects
ethanol	64-17-5	DNEL	206 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
ethanol	64-17-5	DNEL	87 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
toluene	108-88-3	DNEL	192 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
toluene	108-88-3	DNEL	384 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
toluene	108-88-3	DNEL	56.5 mg/m³	human, inhalatory	consumer (private households)	chronic - systemic effects
toluene	108-88-3	DNEL	226 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
toluene	108-88-3	DNEL	8.13 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
ethanol	64-17-5	PNEC	2.75 $^{mg}/_{l}$	water
ethanol	64-17-5	PNEC	0.96 $^{mg}/_{l}$	freshwater
ethanol	64-17-5	PNEC	0.79 $^{mg}/_{l}$	marine water
ethanol	64-17-5	PNEC	580 $^{mg}/_{l}$	sewage treatment plant (STP)
ethanol	64-17-5	PNEC	3.6 $^{mg}/_{kg}$	freshwater sediment
ethanol	64-17-5	PNEC	0.63 $^{mg}/_{kg}$	soil
toluene	108-88-3	PNEC	0.68 $^{mg}/_{l}$	freshwater
toluene	108-88-3	PNEC	0.68 $^{mg}/_{l}$	marine water

Relevant PNECs of components of the mixture				
Name of substance	**CAS No**	**Endpoint**	**Threshold level**	**Environmental compartment**
toluene	108-88-3	PNEC	13.61 $^{mg}/_{l}$	sewage treatment plant (STP)
toluene	108-88-3	PNEC	16.39 $^{mg}/_{kg}$	freshwater sediment
toluene	108-88-3	PNEC	16.39 $^{mg}/_{kg}$	marine sediment
toluene	108-88-3	PNEC	2.89 $^{mg}/_{kg}$	soil

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Hand protection

Protective gloves		
Material	**Material thickness**	**Breakthrough times of the glove material**
IIR: isobutene-isoprene (butyl) rubber	≥ 0,7 mm	>480 minutes (permeation: level 6)

Wear suitable gloves.
Chemical protection gloves are suitable, which are tested according to EN 374.
Check leak-tightness/impermeability prior to use.
In the case of wanting to use the gloves again, clean them before taking off and air them well.
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.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.
Type: A-P2 (combined filters against particles and organic gases and vapours, colour code: Brown/White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination.
Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Form	fluid
Colour	colourless
Odour	alcohol-like
Odour threshold	not determined

Other safety parameters

pH (value)	~7 (water: 100 $^{mg}/_{cm^3}$, 20 °C)
Melting point/freezing point	-115 °C
Initial boiling point and boiling range	78 °C
Flash point	10 °C
Evaporation rate	not determined
Flammability (solid, gas)	not relevant (fluid)
Explosive limits	
Lower explosion limit (LEL)	2.5 vol%
Upper explosion limit (UEL)	13 vol%
Vapour pressure	57.3 Pa at 20 °C
Density	0.79 $^{g}/_{cm^3}$ at 20 °C
Vapour density	not determined
Relative density	these information are not available
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient	
n-octanol/water (log KOW)	these information are not available
Auto-ignition temperature	363 – 425 °C
Relative self-ignition temperature for solids	not relevant (Fluid)
Decomposition temperature	>700 °C not determined

Viscosity	
Kinematic viscosity	not determined
Dynamic viscosity	these information are not available
Explosive properties	not explosive, vapours may form explosive mixtures with air
Oxidising properties	shall not be classified as oxidising

9.2 Other information

Temperature class (EU, acc. to ATEX)	T2

SECTION 10: Stability and reactivity

10.1 Reactivity

If heated:

risk of ignition

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture.
Oxygen.
Oxidiser.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharge.

Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.

10.5 Incompatible materials

acids, reducing agents

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.
Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification procedure

If not otherwise specified the classification is based on:
Ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic (oral).
Shall not be classified as acutely toxic (inhalation).

Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	End-point	Value	Species	Method	Source
ethanol	64-17-5	inhalation: vapour	LC50	124.7 $^{mg}/_{l}$/4h	rat	OECD Guideline 403	ECHA
ethanol	64-17-5	oral	LD50	10,470 $^{mg}/_{kg}$	rat	OECD Guideline 401	ECHA
toluene	108-88-3	inhalation: vapour	LC50	28.1 $^{mg}/_{l}$/4h	rat	OECD Guideline 403	ECHA
toluene	108-88-3	oral	LD50	5,580 $^{mg}/_{kg}$	rat, male	EU method B.1	ECHA
toluene	108-88-3	dermal	LD50	>5,000 $^{mg}/_{kg}$	rabbit, male		ECHA

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Skin sensitisation
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.
Respiratory sensitisation
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Test data are not available for the complete mixture.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Method	Source	Notes	Exposure time
ethanol	64-17-5	LC50	14.2 g/l	fathead minnow (Pimephales promelas)	US EPA method E03-05	ECHA		96 h
ethanol	64-17-5	LC50	5,012 mg/l	Ceriodaphnia dubia (water flea)	ASTM E729-80	ECHA		48 h
ethanol	64-17-5	EC50	12.9 g/l	fathead minnow (Pimephales promelas)	US EPA method E03-05	ECHA	behaviour	96 h
ethanol	64-17-5	ErC50	275 mg/l	algae (Chlorella vulgaris)	OECD Guideline 201	ECHA		72 h
toluene	108-88-3	LC50	5.5 mg/l	coho salmon (Oncorhynchus kisutch)		ECHA		96 h

Name of substance	CAS No	Endpoint	Value	Species	Method	Source	Notes	Exposure time
toluene	108-88-3	LC50	3.78 mg/l	Ceriodaphnia dubia (water flea)		ECHA		48 h

Aquatic toxicity (chronic)

Test data are not available for the complete mixture.

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Method	Source	Exposure time
ethanol	64-17-5	LC50	1,806 mg/l	Ceriodaphnia dubia (water flea)		ECHA	10 d
ethanol	64-17-5	LC50	454 mg/l	daphnia magna		ECHA	9 d
ethanol	64-17-5	NOEC	250 mg/l	zebra fish (danio rerio)	OECD Guideline 212	ECHA	120 h
ethanol	64-17-5	NOEC	9.6 mg/l	Ceriodaphnia dubia (water flea)		ECHA	10 d
ethanol	64-17-5	growth rate (ErCx) 10%	86 mg/l	algae (Chlorella vulgaris)	OECD Guideline 201	ECHA	4 d
ethanol	64-17-5	growth rate (ErCx) 10%	11.5 mg/l	algae (Chlorella vulgaris)	OECD Guideline 201	ECHA	3 d
toluene	108-88-3	EC50	3.23 mg/l	Ceriodaphnia dubia (water flea)	US EPA 600/4-91-003	ECHA	7 d
toluene	108-88-3	LOEC	2.77 mg/l	coho salmon (Oncorhynchus kisutch)		ECHA	40 d
toluene	108-88-3	NOEC	1.39 mg/l	coho salmon (Oncorhynchus kisutch)		ECHA	40 d

12.2 Persistence and degradability

Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
ethanol	64-17-5	oxygen depletion	~84 %	20 d		ECHA

Biodegradation

The relevant substances of the mixture are readily biodegradable.

Persistence

Data are not available.

12.3 Bioaccumulative potential

No.

Bioaccumulative potential of components of the mixture

Name of substance	CAS No	Log KOW
ethanol	64-17-5	-0.35 (pH value: 7.4, 24 °C)
toluene	108-88-3	2.73 (pH value: 7, 20 °C)

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

Data are not available.

Endocrine disrupting potential

None of the ingredients are listed.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): 1

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.
Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1	**UN number**	1170
14.2	**UN proper shipping name**	ETHANOL SOLUTION
14.3	**Transport hazard class(es)**	
	Class	3
14.4	**Packing group**	II
14.5	**Environmental hazards**	non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

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

The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

UN number	1170
Proper shipping name	UN1170, ETHANOL SOLUTION, 3, II, (D/E)
Class	3
Classification code	F1
Packing group	II
Danger label(s)	3

Special provisions (SP)	144, 601
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
Transport category (TC)	2.
Tunnel restriction code (TRC)	D/E
Hazard identification No	33
Emergency Action Code	2YE

International Maritime Dangerous Goods Code (IMDG)

UN number	1170
Proper shipping name	UN1170, ETHANOL SOLUTION, 3, II, 10°C c.c.
Class	3
Marine pollutant	-
Packing group	II
Danger label(s)	3

Special provisions (SP)	144
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-E, S-D
Stowage category	A

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number	1170
Proper shipping name	UN1170, Ethanol solution, 3, II
Class	3
Packing group	II
Danger label(s)	3

Special provisions (SP)	A3, A58, A180
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)

Name of substance	Name acc. to inventory	Type of registration	Restriction	No
Ethanol 1632T	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC	1907/2006/EC annex XVII	R3	3
ethanol	flammable / pyrophoric	1907/2006/EC annex XVII	R40	40
toluene	toluene	1907/2006/EC annex XVII	R48	48
toluene	flammable / pyrophoric	1907/2006/EC annex XVII	R40	40

Legend

R3 1. Shall not be used in:
- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
2. Articles not complying with paragraph 1 shall not be placed on the market.
3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
- can be used as fuel in decorative oil lamps for supply to the general public, and,
- present an aspiration hazard and are labelled with R65 or H304,
4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
(a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
(b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
(c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

Legend

R40 1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:
- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- 'whoopee' cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.

2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:
'For professional users only'.

3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (2).

4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

R48 Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than 0,1 % by weight where the substance or mixture is used in adhesives or spray paints intended for supply to the general public.

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

none of the ingredients are listed

Seveso Directive

2012/18/EU (Seveso III)

No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes
P5c	flammable liquids (cat. 2, 3)	5,000	50,000	51)

Notation

51) flammable liquids, categories 2 or 3 not covered by P5a and P5b

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

none of the ingredients are listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

Pollutant release and transfer registers (PRTR)

Name of substance	CAS No	Remarks	Threshold for releases to air (kg/year)
toluene	108-88-3	(11)	

Legend

(11) Single pollutants are to be reported if the threshold for BTEX (the sum parameter of benzene, toluene, ethyl benzene, xylenes) is exceeded

Regulation 648/2004/EC on detergents

Labelling of contents	
Wt%	**Constituents**
< 5 %	aromatic hydrocarbons

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

none of the ingredients are listed

Regulation 98/2013/EU on the marketing and use of explosives precursors

none of the ingredients are listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2017/2398/EU	Directive of the European Parliament and of the Council amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
Asp. Tox.	Aspiration hazard
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances

Abbr.	Descriptions of used abbreviations
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Repr.	Reproductive toxicity
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
SVHC	Substance of Very High Concern
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).
International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties.
Health hazards.
Environmental hazards.
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

Responsible for the safety data sheet

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Disclaimer

This information is based upon the present state of our knowledge.
This SDS has been compiled and is solely intended for this product.