

acc. to 29 CFR 1910.1200 App D

Adam's TAR

Version number: GHS 1.0 Date of compilation: 2020-02-17

SECTION 1: Identification

1.1 Product identifier

Trade name Adam's TAR

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

Relevant identified uses General use

1.3 Details of the supplier of the safety data sheet

Adam's Polishes Inc. 8225 North Valley Hwy. Thornton CO 80221 720-484-5059

tips@adamspolishes.com www.adamspolishes.com

1.4 Emergency telephone number

Emergency information service

USA 1.800.535.5053, INTL 1.352.323.3500 24 hour emergency number

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard state- ment
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
A.4S	skin sensitization	1	Skin Sens. 1	H317
A.6	carcinogenicity	2	Carc. 2	H351
A.8D	specific target organ toxicity - single exposure (narcotic effects, drowsiness)	3	STOT SE 3	H336
A.9	specific target organ toxicity - repeated exposure	2	STOT RE 2	H373
B.3	flammable aerosol	1	Flam. Aerosol 1	H222
B.5	gases under pressure	С	Press. Gas C	H280

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. Contains gas under pressure; may explode if heated.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger

- Pictograms

GHS02, GHS04, GHS07, GHS08









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- Hazard statements

H222 Extremely flammable aerosol.

H280 Contains gas under pressure; may explode if heated.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

- Precautionary statements

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.

P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 If on skin: Wash with plenty of water.

P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

P312 Call a poison center/doctor if you feel unwell.
P321 Specific treatment (see on this label).

P362 Take off contaminated clothing and wash it before reuse.

P363 Wash contaminated clothing before reuse.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P410+P403 Protect from sunlight. Store in a well-ventilated place.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Hazardous ingredients for labelling

ethylbenzene, d-limonene, 1,1-difluoroethane, Propan-2-ol

2.3 Other hazards

Hazards not otherwise classified

May be harmful in contact with skin (GHS category 5: acutely toxic - dermal).

May be harmful if inhaled (GHS category 5: acutely toxic - inhalation).

Toxic to aquatic life with long lasting effects (GHS category 2: aquatic toxicity - acute and/or chronic).

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)

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3.2 Mixtures

Description of the mixture

Hazardous ingredients acc. to GHS

Name of substance	Identifier	Wt%	Classification acc. to GHS				
Solvent naphtha (petroleum), heavy aliph.	CAS No 64742-96-7	12-<20	Acute Tox. 3 / H331 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226				
distillates (petroleum) hydrotreated, light	CAS No 64742-47-8	12-<20	Asp. Tox. 1 / H304				
1,1-difluoroethane	CAS No 75-37-6	12-<20	STOT SE 3 / H336 Flam. Gas 1 / H220 Press. Gas C / H280				
xylene	CAS No 1330-20-7	12-<20	Acute Tox. 4 / H312 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Flam. Liq. 2 / H225				
2-(2-butoxyethoxy)ethanol	CAS No 112-34-5	12-<20	Eye Irrit. 2 / H319				
heptane	CAS No 142-82-5	12-<20	Skin Irrit. 2 / H315 STOT SE 3 / H336 Asp. Tox. 1 / H304 Flam. Liq. 2 / H225				
Propan-2-ol	CAS No 67-63-0	12-<20	Eye Irrit. 2 / H319 STOT SE 3 / H336 Flam. Liq. 2 / H225				
d-limonene	CAS No 5989-27-5	12-<20	Skin Irrit. 2 / H315 Skin Sens. 1B / H317 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226				
ethylbenzene	CAS No 100-41-4	3-<12	Acute Tox. 4 / H332 Carc. 2 / H351 STOT RE 2 / H373 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226				

For full text of abbreviations: see SECTION 16. Exact percentage of ingredients is withheld as a trade secret.

SECTION 4: First-aid measures

4.1 Description of first- aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Thaw frosted parts with lukewarm water. Do not rub affected area.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing.

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Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Contact with the product can cause burns and/or frostbite. Contains gas under pressure; may explode if heated.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

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.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Flammability hazards
- Do not spray on an open flame or other ignition source. Protect from sunlight.
- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

	·					,					
Coun try	Name of agent	CAS No	Iden- tifier	TWA [ppm]	TWA [mg/ m³]	STEL [ppm]	STEL [mg/ m³]	Ceil- ing-C [ppm]	Ceil- ing-C [mg/ m³]	Nota tion	Sourc e
US	ethylbenzene	100-41-4	PEL (CA)	5	22	30	130				Cal/ OSHA PEL
US	ethylbenzene	100-41-4	REL	100 (10 h)	435 (10 h)	125	545				NIOS H REL
US	ethylbenzene	100-41-4	TLV®	20							AC- GIH® 2019
US	ethylbenzene	100-41-4	PEL	100	435						29 CFR 1910.1 000
US	diethylene glycol monobutyl ether	112-34-5	TLV®	10						iv	AC- GIH® 2019
US	xylene, mixture of isomers	1330-20- 7	TLV®	100		150					AC- GIH® 2019

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Occupational exposure limit values (Workplace Exposure Limits)

Coun try	Name of agent	CAS No	Iden- tifier	TWA [ppm]	TWA [mg/ m³]	STEL [ppm]	STEL [mg/ m³]	Ceil- ing-C [ppm]	Ceil- ing-C [mg/ m³]	Nota tion	Sourc e
US	xylene, mixture of isomers	1330-20- 7	PEL	100	435						29 CFR 1910.1 000
US	xylene (dimethyl- benzene)	1330-20- 7	PEL (CA)	100	435	150	655	300			Cal/ OSHA PEL
US	heptane (n- heptane)	142-82-5	PEL	500	2,000						29 CFR 1910.1 000
US	n-heptane	142-82-5	PEL (CA)	400	1,600	500	2,000				Cal/ OSHA PEL
US	n-heptane	142-82-5	REL	85 (10 h)	350 (10 h)			440 (15 min)	1,800 (15 min)		NIOS H REL
US	n-heptane	142-82-5	TLV®	400		500					AC- GIH® 2019
US	2-propanol	67-63-0	TLV®	200		400					AC- GIH® 2019
US	isopropyl alcohol	67-63-0	PEL (CA)	400	980	500	1,225				Cal/ OSHA PEL
US	isopropyl alcohol	67-63-0	REL	400 (10 h)	980 (10 h)	500	1,225				NIOS H REL
US	isopropyl alcohol	67-63-0	PEL	400	980						29 CFR 1910.1 000

Notation

ceiling value is a limit value above which exposure should not occur inhalable fraction and vapor Ceiling-C

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

Biological limit values

Diologica	biological littit values									
Country	Name of agent	Parameter	Nota- tion	Identifier	Value	Source				
US	ethylbenzene	mandelic acid, benzoylform- ic acid	crea	BEI®	0.15 g/g	ACGIH® 2019				
US	xylene, mixture of isomers	methylhippuric acids	crea	BEI®	1.5 g/g	ACGIH® 2019				

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Biological limit values

Country	Name of agent	Parameter	Nota- tion	Identifier	Value	Source
US	isopropanol	acetone		BEI®	40 mg/l	ACGIH® 2019

Notation

crea creatinine

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
xylene	1330-20-7	DNEL	77 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
xylene	1330-20-7	DNEL	289 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
xylene	1330-20-7	DNEL	289 mg/m ³	human, inhalatory	worker (industry)	acute - local ef- fects
xylene	1330-20-7	DNEL	180 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2-(2-butoxyethoxy)eth- anol	112-34-5	DNEL	67.5 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
2-(2-butoxyethoxy)eth- anol	112-34-5	DNEL	67.5 mg/m ³	human, inhalatory	worker (industry)	chronic - local ef- fects
2-(2-butoxyethoxy)eth- anol	112-34-5	DNEL	101.2 mg/m ³	human, inhalatory	worker (industry)	acute - local ef- fects
2-(2-butoxyethoxy)eth- anol	112-34-5	DNEL	83 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
heptane	142-82-5	DNEL	300 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
heptane	142-82-5	DNEL	2,085 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Propan-2-ol	67-63-0	DNEL	888 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
Propan-2-ol	67-63-0	DNEL	500 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
d-limonene	5989-27-5	DNEL	33.3 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
ethylbenzene	100-41-4	DNEL	180 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
ethylbenzene	100-41-4	DNEL	77 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects

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Relevant PNECs of components of the mixture

Relevant PNECs of components of the mixture							
Name of substance	CAS No	End- point	Threshold level	Organism	Environmental compartment	Exposure time	
xylene	1330-20-7	PNEC	6.58 ^{mg} / _l	microorganisms	sewage treatment plant (STP)	short-term (single instance)	
xylene	1330-20-7	PNEC	12.46 ^{mg} / _{kg}	benthic organisms	sediment	short-term (single instance)	
xylene	1330-20-7	PNEC	12.46 ^{mg} / _{kg}	pelagic organisms	sediment	short-term (single instance)	
xylene	1330-20-7	PNEC	0.327 ^{mg} / _l	aquatic organisms	water	intermittent re- lease	
xylene	1330-20-7	PNEC	0.327 ^{mg} / _I	aquatic organisms	freshwater	short-term (single instance)	
xylene	1330-20-7	PNEC	0.327 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)	
xylene	1330-20-7	PNEC	6.58 ^{mg} / _I	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)	
xylene	1330-20-7	PNEC	12.46 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instance)	
xylene	1330-20-7	PNEC	12.46 ^{mg} / _{kg}	aquatic organisms	freshwater sedi- ment	short-term (single instance)	
xylene	1330-20-7	PNEC	2.31 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single instance)	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	200 ^{mg} / _l	microorganisms	sewage treatment plant (STP)	short-term (single instance)	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	4 ^{mg} / _{kg}	benthic organisms	sediment	short-term (single instance)	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	56 ^{mg} / _{kg}	(top) predators	water	short-term (single instance)	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	3.9 ^{mg} / _l	aquatic organisms	water	intermittent re- lease	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	0.4 ^{mg} / _{kg}	pelagic organisms	sediment	short-term (single instance)	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	1.1 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	0.11 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	200 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	4.4 ^{mg} / _{kg}	aquatic organisms	freshwater sedi- ment	short-term (single instance)	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	0.44 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instance)	
2-(2-butoxyethoxy)eth- anol	112-34-5	PNEC	0.32 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single instance)	
Propan-2-ol	67-63-0	PNEC	140.9 ^{mg} / _I	aquatic organisms	freshwater	short-term (single instance)	

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Relevant PNECs of components of the mixture

Name of substance	CAS No	End- point	Threshold level	Organism	Environmental compartment	Exposure time
Propan-2-ol	67-63-0	PNEC	140.9 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
Propan-2-ol	67-63-0	PNEC	2,251 ^{mg} / _l	microorganisms	sewage treatment plant (STP)	short-term (single instance)
Propan-2-ol	67-63-0	PNEC	552 ^{mg} / _{kg}	benthic organisms	sediment	short-term (single instance)
Propan-2-ol	67-63-0	PNEC	552 ^{mg} / _{kg}	pelagic organisms	sediment	short-term (single instance)
Propan-2-ol	67-63-0	PNEC	160 ^{mg} / _{kg}	(top) predators	water	short-term (single instance)
Propan-2-ol	67-63-0	PNEC	28 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single instance)
Propan-2-ol	67-63-0	PNEC	140.9 ^{mg} / _l	aquatic organisms	water	intermittent re- lease
d-limonene	5989-27-5	PNEC	5.4 ^{µg} / _I	aquatic organisms	freshwater	short-term (single instance)
d-limonene	5989-27-5	PNEC	0.54 ^{µg} / _l	aquatic organisms	marine water	short-term (single instance)
d-limonene	5989-27-5	PNEC	1.8 ^{mg} / _I	microorganisms	sewage treatment plant (STP)	short-term (single instance)
d-limonene	5989-27-5	PNEC	1.32 ^{mg} / _{kg}	benthic organisms	sediment	short-term (single instance)
d-limonene	5989-27-5	PNEC	0.13 ^{mg} / _{kg}	pelagic organisms	sediment	short-term (single instance)
d-limonene	5989-27-5	PNEC	0.262 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single instance)
d-limonene	5989-27-5	PNEC	3.33 ^{mg} / _{kg}	(top) predators	water	short-term (single instance)
ethylbenzene	100-41-4	PNEC	0.1 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)
ethylbenzene	100-41-4	PNEC	0.01 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
ethylbenzene	100-41-4	PNEC	9.6 ^{mg} / _I	microorganisms	sewage treatment plant (STP)	short-term (single instance)
ethylbenzene	100-41-4	PNEC	13.7 ^{mg} / _{kg}	benthic organisms	sediment	short-term (single instance)
ethylbenzene	100-41-4	PNEC	1.37 ^{mg} / _{kg}	pelagic organisms	sediment	short-term (single instance)
ethylbenzene	100-41-4	PNEC	0.1 ^{mg} / _l	aquatic organisms	water	intermittent re- lease
ethylbenzene	100-41-4	PNEC	2.68 ^{mg} / _{kg}	terrestrial organisms	soil	short-term (single instance)

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8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear protective gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

During spraying wear suitable respiratory equipment. In case of inadequate ventilation wear respiratory protection.

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	aerosol (spray aerosol)
Color	various
Odor	characteristic

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	-25 °C
Flash point	-4 °C
Evaporation rate	not determined
Flammability (solid, gas)	flammable aerosol in accordance with GHS criteria

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- Lower explosion limit (LEL)	0.6 vol%
- Upper explosion limit (UEL)	18 vol%
Vapor pressure	514,624 Pa at 25 °C
Density	not determined
Vapor density	this information is not available
Relative density	information on this property is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	204 °C (auto-ignition temperature (liquids and gases))
Viscosity	not relevant (aerosol)
Explosive properties	none
Oxidizing properties	none

Propellant content	12.12 %
Temperature class (USA, acc. to NEC 500)	T3 (maximum permissible surface temperature on the equipment: 200°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Gas under pressure. Risk of ignition.

If heated

Danger of explosion, Gas under pressure, Danger of bursting container

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Do not spray on an open flame or other ignition source. Keep away from heat.

Hints to prevent fire or explosion

Protect from sunlight.

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10.5 Incompatible materials

Oxidizers

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

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful in contact with skin or if inhaled.

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Solvent naphtha (petroleum), heavy aliph.	64742-96-7	inhalation: vapor	5.28 ^{mg} / _l /4h
xylene	1330-20-7	dermal	1,100 ^{mg} / _{kg}
xylene	1330-20-7	inhalation: vapor	11 ^{mg} / _l /4h
ethylbenzene	100-41-4	inhalation: vapor	11 ^{mg} / _l /4h

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
xylene	1330-20-7	3	
d-limonene	5989-27-5	3	
Propan-2-ol	67-63-0	3	
ethylbenzene	100-41-4	2B	

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Legend

2B Possibly carcinogenic to humans

3 Not classifiable as to carcinogenicity in humans

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	ue Species	
1,1-difluoroethane	75-37-6	LC50	295.8 ^{mg} / _I	fish	96 h
1,1-difluoroethane	75-37-6	EC50	146.7 ^{mg} / _l	aquatic invertebrates	48 h
2-(2-butoxyethoxy)eth- anol	112-34-5	LC50	1,300 ^{mg} / _l	fish	96 h
2-(2-butoxyethoxy)eth- anol	112-34-5	EC50	>100 ^{mg} / _I	aquatic invertebrates	48 h
2-(2-butoxyethoxy)eth- anol	112-34-5	ErC50	>100 ^{mg} / _I	algae	96 h
heptane	142-82-5	EC50	1.5 ^{mg} / _l	aquatic invertebrates	48 h
Propan-2-ol	67-63-0	LC50	10,000 ^{mg} / _l	fish	96 h
d-limonene	5989-27-5	LC50	720 ^{µg} / _I	fish	96 h
d-limonene	5989-27-5	EC50	688 ^{µg} / _I	fish	96 h
ethylbenzene	100-41-4	LC50	6.4 ^{mg} / _I	fish	48 h
ethylbenzene	100-41-4	EC50	2.4 ^{mg} / _l	aquatic invertebrates	48 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Value Species	
Propan-2-ol	67-63-0	LC50	>10,000 ^{mg} / _l	aquatic invertebrates	24 h
d-limonene	5989-27-5	EC50	0.85 ^{mg} / _l	aquatic invertebrates	24 h
ethylbenzene	100-41-4	LC50	7 ^{mg} / _I	fish	24 h
ethylbenzene	100-41-4	EC50	2.8 ^{mg} / _l	aquatic invertebrates	24 h

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12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

Results of PBT and vPvB assessment 12.5

Data are not available.

12.6 Other adverse effects

Endocrine disrupting potential None of the ingredients are listed.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

heptane

SECTION 14: Transport information

14.1	UN number	1950
14.2	UN proper shipping name	Aerosols

14.3 Transport hazard class(es)

Class 2.1 (gases) (aerosol) (flammable)

14.4 Packing group not assigned to a packing group

14.5 Environmental hazards hazardous to the aquatic environment

Environmentally hazardous substance (aquatic

environment)

14.6 Special precautions for user

There is no additional information.

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

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

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Transport of dangerous goods by road or rail (49 CFR US DOT)

Index number 1950
Proper shipping name Aerosols

- Particulars in the shipper's declaration UN1950, Aerosols, 2.1, environmentally hazardous

- Reportable quantity (RQ) 825 lbs (374.6 kg) (xylene) (ethylbenzene)

Class 2.1

Danger label(s) 2.1, fish and tree



Environmental hazards yes (hazardous to the aquatic environment)

Special provisions (SP) N82 ERG No 126

International Maritime Dangerous Goods Code (IMDG)

UN number 1950

Proper shipping name AEROSOLS

Class 2.1

Marine pollutant Yes (hazardous to the aquatic environment)

Danger label(s) 2.1, fish and tree



Special provisions (SP) 63, 190, 277, 327, 344, 381, 959

Excepted quantities (EQ) E0
Limited quantities (LQ) 1 L
EmS F-D, S-U

Stowage category -

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number 1950

Proper shipping name Aerosols, flammable

Class 2.1

Environmental hazards yes (hazardous to the aquatic environment)

Danger label(s) 2.1



Special provisions (SP) A145, A167

Excepted quantities (EQ) E0
Limited quantities (LQ) 30 kg

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SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question **National regulations (United States)**

Toxic Substance Control Act (TSCA)

all ingredients are listed

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings

Name acc. to inventory	CAS No	Remarks	Effective date
xylene, mixture of isomers	1330-20-7		1986-12-31
isopropyl alcohol	67-63-0	only persons who manufacture by the strong acid process are subject, supplier notification not re- quired	1986-12-31
ethylbenzene	100-41-4		1986-12-31

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	CAS No	Wt%	Remarks	Statutory code	Final RQ pounds (Kg)
xylene	1330-20-7	12.12		1 3 4	100 (45,4)
ethylbenzene	100-41-4	3.03		1 2 3	1000 (454)

Legend

"1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act

2 3 "2" indicates that the source is section 307(a) of the Clean Water Act

"3" indicates that the source is section 112 of the Clean Air Act

"4" indicates that the source is section 3001 of the Resource Conservation and Recovery Act (RCRA)

Clean Air Act

Name of substance	CAS No	Type of registra- tion	Basis for listing	Threshold quantity (lbs)
1,1-difluoroethane	75-37-6	Flammable sub- stance	f	10000

Legend

Flammable gas.

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Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK)

Name of substance	CAS No	Functionality	Authoritative Lists
heptane	142-82-5	solvents	CDC 4th National Exposure Report
distillates (petroleum) hydrotreated, light	64742-47-8	solvents	
2-(2-butoxyethoxy)ethanol		co-solvent	CA TACs
xylene	1330-20-7	solvents	ATSDR Neurotoxicants CA MCLs CA TACs CDC 4th National Exposure Report CWA 303(d) IRIS Neurotoxicants OEHHA RELs
d-limonene	5989-27-5	fragrance	EU Fragrance Allergens
Propan-2-ol	67-63-0	alcohols	OEHHA RELs
Solvent naphtha (petroleum), heavy aliph.	64742-96-7	solvents	
ethylbenzene	100-41-4	non-functional con- stituent	ATSDR Neurotoxicants CA MCLs CA TACs CDC 4th National Exposure Report CWA 303(c) CWA 303(d) IARC Carcinogens - 2B OEHHA RELs Prop 65

- Toxic or Hazardous Substance List (MA-TURA)

Name of substance	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshol d	De Minimis Con- centration Threshold
2-(2-butoxyethoxy)ethanol		1022			1.0 %
xylene	1330-20-7				1.0 %
Propan-2-ol	67-63-0				1.0 %
ethylbenzene	100-41-4				0.1 %

- Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
heptane	142-82-5	A, N, O	
heptane		N	
xylene	1330-20-7	A, N, O	
Propan-2-ol	67-63-0	A, N, O	
ethylbenzene	100-41-4	A, O	

Legend

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American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH

National Institute for Occupational Safety and Health (NIOSH), "Recommendations for Occupational Safety and Health Standards," August 1988, available from NIOSH, Publications Dissemination Office, Division of Standards Development and Technology Transfer



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Legend

Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
heptane	142-82-5		F3
2-(2-butoxyethoxy)ethanol			
xylene	1330-20-7		F3
d-limonene	138-86-3		F2
Propan-2-ol	67-63-0		F3
ethylbenzene	100-41-4		CA F3
1,1-difluoroethane	75-37-6		F4

Legend

CA F2 F3 F4 Carcinogenic Flammable - Second Degree Flammable - Third Degree Flammable - Fourth Degree

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name of substance	CAS No	Classification
heptane	142-82-5	
2-(2-butoxyethoxy)ethanol		E
xylene	1330-20-7	E
Propan-2-ol	67-63-0	E
ethylbenzene	100-41-4	E

Legend

Environmental hazard

- Hazardous Substance List (RI-RTK)

Name of substance	CAS No	References
heptane	142-82-5	T, F
xylene	1330-20-7	T, F
Propan-2-ol	67-63-0	T, F
ethylbenzene	100-41-4	T, F

Legend

Flammability (NFPA®) Toxicity (ACGIH®)

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California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals

Name acc. to inventory	CAS No	Wt%	Remarks	Type of the toxicity
ethylbenzene	100-41-4	3.03		cancer

VOC content

Regulated Volatile Organic Compounds (VOC-EPA): 51.52 % Regulated Volatile Organic Compounds (VOC-Cal ARB): 51.52 %

Industry or sector specific available guidance(s) NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	2	temporary or minor injury may occur
Flammability	4	material that rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature or that is readily dispersed in air and burn readily
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

Chronic: chronic hazard
Flammability: flammability hazard
Health: health hazard

Personal protection: personal protective equipment (PPE) for normal use

Physical hazard: reactivity

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	4	material that rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature or that is readily dispersed in air and burn readily
Health	2	material that, under emergency conditions, can cause temporary incapacitation or residual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

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Country	Inventory	Status
CA	DSL	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
US	TSCA	all ingredients are listed

Legend

DSL Domestic Substances List (DSL)
REACH Reg.
REACH registered substances
TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2019	From ACGIH®, 2019 TLVs® and BEIs® Book. Copyright 2019. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
Cal ARB	California Air Resources Board
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EmS	Emergency Schedule
EPA	Environmental Protection Agency. An agency of the federal government of the United States charged with protecting human health and the environment
ErC50	= EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number

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Abbr.	Descriptions of used abbreviations
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Gas	Flammable gas
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
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
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LHS	Lower hazard substance
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NFPA®	National Fire Protection Association (United States)
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Press. Gas	Gas under pressure
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

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Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

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
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Disclaimer

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

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