

acc. to 29 CFR 1910.1200 App D

POR-15 GRAY

Version number: GHS 3.0 Revision: 2024-06-17 Replaces version of: 2023-12-07 (GHS 2)

SECTION 1: Identification

1.1 Product identifier

Trade name POR-15 GRAY

Product code(s) 45201, 45204, 45205, 45208, 45255

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

Relevant identified uses Paint

1.3 Details of the supplier of the safety data sheet

P.O.R. Products 38 Portman Road New Rochelle NY 10801 United States

Telephone: +1 914-636-0700 e-mail: support@porproducts.com Website: www.porproducts.com

e-mail (competent person) support@porproducts.com

1.4 Emergency telephone number

Emergency information service 1-800-255-3924 ChemTel Inc.

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 cat- egory	Hazard state- ment
A.1I	acute toxicity (inhal.)	3	Acute Tox. 3	H331
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
A.4R	respiratory sensitization	1	Resp. Sens. 1	H334
A.4S	skin sensitization	1	Skin Sens. 1	H317
A.5	germ cell mutagenicity	1B	Muta. 1B	H340
A.6	carcinogenicity	1A	Carc. 1A	H350
A.8R	specific target organ toxicity - single exposure (respiratory tract irritation)	3	STOT SE 3	H335
A.9	specific target organ toxicity - repeated exposure	2	STOT RE 2	H373
A.10	aspiration hazard	1	Asp. Tox. 1	H304
B.6	flammable liquid	3	Flam. Liq. 3	H226

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

2.2 Label elements

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

- Signal word danger

- Pictograms

GHS02, GHS06, GHS07, GHS08









- Hazard statements

H226 Flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation. H340 May cause genetic defects.

H350 May cause cancer.

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

- Precautionary statements

P201 Obtain special instructions before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.
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/eye protection/face protection.
P285 In case of inadequate ventilation wear respiratory protection.
P301+P310 If swallowed: Immediately call a poison center/doctor.

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

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/

shower.

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

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

easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P331 Do NOT induce vomiting.

P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.

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

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- Precautionary statements

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling Methylenediphenyl diisocyanate, Solvent naphtha

(petroleum), light arom., 4,4'-diphenylmeth-

anediisocyanate, Carbon black, methylenediphenyl

diisocyanate

2.3 Other hazards

Hazards not otherwise classified

Contains isocyanates. May produce an allergic reaction.

Contains epoxy constituents. May produce an allergic reaction.

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of \geq 0.1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of \geq 0.1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS
Methylenediphenyl diisocyanate	CAS No 26447-40-5	25 - < 50	Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Resp. Sens. 1 / H334 Skin Sens. 1 / H317 Carc. 2 / H351 STOT SE 3 / H335 STOT RE 2 / H373
Carbon black	CAS No 1333-86-4	10 - < 25	Carc. 1A / H350
Titanium dioxide (excluding nano- particle)	CAS No 13463-67-7	10-<25	Carc. 2 / H351
Solvent naphtha (petroleum), light arom.	CAS No 64742-95-6	10 - < 25	Muta. 1B / H340 Carc. 1A / H350 Asp. Tox. 1 / H304 Flam. Liq. 1 / H224
Polyurethane Pre Polymer	CAS No 38639-88-2	10 - < 25	

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Name of substance	Identifier	Wt%	Classification acc. to GHS
4,4'-diphenylmethanediisocyanate	CAS No 101-68-8	5 – < 10	Acute Tox. 2 / H330 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Resp. Sens. 1 / H334 Skin Sens. 1 / H317 Carc. 2 / H351 STOT SE 3 / H373
methylenediphenyl diisocyanate	CAS No 26447-40-5	5-<10	Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Resp. Sens. 1 / H334 Skin Sens. 1 / H317 Carc. 2 / H351 STOT SE 3 / H335 STOT RE 2 / H373
1,2,4-trimethylbenzene	CAS No 95-63-6	1-<5	Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226
Polymethylene polyphenylene iso- cyanate	CAS No 9016-87-9 32055-14-4	1-<5	
1-isocyanato-2-({4-isocyanato-3-[(4-isocyanatophenyl)methyl]phenyl}methyl)-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene	CAS No 9016-87-9	1-<5	Acute Tox. 2 / H330
2-methoxy-1-methylethyl acetate	CAS No 108-65-6	1-<5	Flam. Liq. 3 / H226
xylene	CAS No 1330-20-7	0.1 - < 1	Acute Tox. 4 / H312 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226
n-butyl acetate	CAS No 123-86-4	0.1 - < 1	STOT SE 3 / H336 Flam. Liq. 3 / H226
ethyl benzene	CAS No 100-41-4	0.1 - < 1	Acute Tox. 4 / H332 Carc. 2 / H351 STOT RE 2 / H373 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226
cumene	CAS No 98-82-8	0.1 - < 1	Carc. 2 / H351 STOT SE 3 / H335 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226

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Name of substance	Identifier	Wt%	Classification acc. to GHS
benzene	CAS No 71-43-2	0 - < 0.1	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Muta. 1B / H340 Carc. 1A / H350 STOT RE 1 / H372 Asp. Tox. 1 / H304 Flam. Liq. 2 / H225
toluene	CAS No 108-88-3	0 - < 0.1	Skin Irrit. 2 / H315 Repr. 2 / H361d STOT SE 3 / H336 STOT RE 2 / H373 Asp. Tox. 1 / H304 Flam. Liq. 2 / H225
acetaldehyde	CAS No 75-07-0	0 - < 0.1	Eye Irrit. 2 / H319 Muta. 2 / H341 Carc. 1A / H350 STOT SE 3 / H335 Flam. Liq. 1 / H224
propylene oxide	CAS No 75-56-9	0 - < 0.1	Acute Tox. 4 / H302 Acute Tox. 3 / H311 Acute Tox. 3 / H331 Eye Irrit. 2 / H319 Muta. 1B / H340 Carc. 2 / H351 STOT SE 3 / H335 Flam. Liq. 1 / H224

Remarks

For full text of abbreviations: see SECTION 16

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

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

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

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

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4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. 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.

Hazardous combustion products

Nitrogen oxides (NOx), 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

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

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

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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

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. 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. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.

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

- 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. Protect from sunlight.

- Ventilation requirements

Keep any substance that emits harmful vapors or gases in a place that allows these to be permanently extracted. Use local and general ventilation. Ground/bond container and receiving equipment.

- 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.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Coun-	Name of agent	C 1 C 1 .									
try	Name of agent	CAS No	Identi- fier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Nota- tion	Source
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				NIOSH REL
US	ethylbenzene	100-41-4	TLV®	20							ACGIH® 2023
US	ethylbenzene	100-41-4	PEL	100	435						29 CFR 1910.100 0
US	methylbis(phenyl- isocyanate) (4,4'- MDI)	101-68-8	PEL					0.02	0.2		29 CFR 1910.100 0
US	methylenebis(p- phenyl isocyanate)	101-68-8	REL	0.005 (10 h)	0.05 (10 h)			0.02 (10 min)	0.2 (10 min)		NIOSH REL
US	methylenebis(p- phenyl isocyanate)	101-68-8	TLV®	0.005							ACGIH® 2023
US	methylenebis(p- phenyl isocyanate) (4,4'-MDI) (4,4'-di- phenylmeth- anediisocyanate)	101-68-8	PEL (CA)	0.005	0.051						Cal/ OSHA PEL
US	propylene glycol monomethyl ether acetate	108-65-6	PEL (CA)	100	541	150	811			Н	Cal/ OSHA PEL
US	toluene	108-88-3	REL	100 (10 h)	375 (10 h)	150	560				NIOSH REL
US	toluene	108-88-3	TLV®	20							ACGIH® 2023
US	toluene	108-88-3	PEL	200		500 (10 min)		300			29 CFR 1910.100 0
US	toluene (toluol)	108-88-3	PEL (CA)	10	37	150	560	500		Н	Cal/ OSHA PEL
US	n-butyl acetate	123-86-4	PEL (CA)	150	710	200	950				Cal/ OSHA PEL
US	n-butyl acetate	123-86-4	REL	150 (10 h)	710 (10 h)	200	950				NIOSH REL

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Occupational exposure limit values (Workplace Exposure Limits)

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Coun- try	Name of agent	CAS No	Identi- fier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Nota- tion	Source
US	n-butyl acetate	123-86-4	TLV®	50		150					ACGIH® 2023
US	n-butyl acetate	123-86-4	PEL	150	710						29 CFR 1910.100 0
US	xylene, mixture of isomers	1330-20-7	TLV®	20							ACGIH® 2023
US	xylene (dimethyl- benzene)	1330-20-7	PEL (CA)	100	435	150	655	300			Cal/ OSHA PEL
US	xylenes (o-, m-, p- isomers)	1330-20-7	PEL	100	435						29 CFR 1910.100 0
US	carbon black	1333-86-4	PEL (CA)		3.5						Cal/ OSHA PEL
US	carbon black	1333-86-4	PEL		3.5						29 CFR 1910.100 0
US	carbon black	1333-86-4	REL		3.5 (10 h)					аррх-А, аррх-С	NIOSH REL
US	carbon black	1333-86-4	TLV®		3					i	ACGIH® 2023
US	carbon black in presence of poly- cyclic aromatic hy- drocarbons (PAHs)	1333-86-4	REL		0.1 (10 h)					PAHs, appx-A, appx-C	NIOSH REL
US	titanium dioxide	13463-67-7	PEL		15					dust	29 CFR 1910.100 0
US	titanium dioxide	13463-67-7	REL							lowest, appx-A	NIOSH REL
US	titanium dioxide	13463-67-7	TLV®		2.5					r, fine	ACGIH® 2023
US	titanium dioxide	13463-67-7	TLV®		0.2					r, nano	ACGIH® 2023
US	benzene	71-43-2	REL	0.1 (10 h)		1				аррх-А	NIOSH REL
US	benzene	71-43-2	PEL (CA)	1		5				Н	Cal/ OSHA PEL
US	benzene	71-43-2	TLV®	0.5		2.5				Н	ACGIH® 2023

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Occupational exposure limit values (Workplace Exposure Limits)

Coun- try	Name of agent	CAS No	Identi- fier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Nota- tion	Source
US	benzene	71-43-2	PEL	1		5				H, i	29 CFR 1910.100 0
US	benzene	71-43-2	PEL	10		50 (10 min)		25		us-pel- z2a	29 CFR 1910.100 0
US	acetaldehyde	75-07-0	PEL (CA)					25	45		Cal/ OSHA PEL
US	acetaldehyde	75-07-0	TLV®					25			ACGIH® 2023
US	acetaldehyde	75-07-0	PEL	200	360						29 CFR 1910.100 0
US	acetaldehyde	75-07-0	REL							lowest, appx-A, appx-C	NIOSH REL
US	propylene oxide	75-56-9	TLV®	2							ACGIH® 2023
US	propylene oxide	75-56-9	PEL	100	240						29 CFR 1910.100 0
US	propylene oxide	75-56-9	REL							lowest, appx-A	NIOSH REL
US	propylene oxide (1,2-epoxypropane)	75-56-9	PEL (CA)	2	4.75						Cal/ OSHA PEL
US	1,2,4-trimethylben- zene	95-63-6	REL	25 (10 h)	125 (10 h)						NIOSH REL
US	1,2,4-trimethylben- zene	95-63-6	TLV®	10							ACGIH® 2023
US	cumene	98-82-8	TLV®	5							ACGIH® 2023
US	cumene	98-82-8	REL	50 (10 h)	245 (10 h)					Н	NIOSH REL
US	cumene	98-82-8	PEL	50	245					Н	29 CFR 1910.100 0
US	cumene (isopropyl- benzene)	98-82-8	PEL (CA)	50	245					Н	Cal/ OSHA PEL

Notation

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NIOSH Potential Occupational Carcinogen (Appendix A) Appendix C - Supplementary Exposure Limits ceiling value is a limit value above which exposure should not occur appx-C Ceiling-C

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Notation

dust as dust fine fineparticle

absorbed through the skin Н

inhalable fraction

lowest exposure by all routes should be carefully controlled to levels as low as possible

nano nanoparticle

PAHs as polycyclic aromatic hydrocarbons (PAHs)

as polycyclic and materials and a specific property of the specific pro STEL

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

us-pel-z2a This standard applies to the industry segments exempt from the 1 ppm 8-hour TWA and 5 ppm STEL of the benzene standard

at 1910.1028.

Biological limit values

Country	Name of agent	Parameter	Notation	Identifier	Value	Source
US	ethylbenzene	Sum of mandelic acid and phenylglyoxylic acid	crea	BEI®	150 mg/g	ACGIH® 2023
US	toluene	toluene		BEI®	0.02 mg/l	ACGIH® 2023
US	toluene	toluene		BEI®	0.03 mg/l	ACGIH® 2023
US	toluene	o-cresol	hydr, crea	BEI®	0.3 mg/g	ACGIH® 2023
US	xylene, mixture of isomers	methylhippuric acids	crea	BEI®	1.5 g/g	ACGIH® 2023
US	benzene	S-phenylmercapturic acid	crea	BEI®	25 μg/g	ACGIH® 2023
US	benzene	trans,trans-muconic acid	crea	BEI®	500 μg/g	ACGIH® 2023

Notation

creatinine crea hydr hydrolysis

Relevant DNELs of components

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
4,4'-diphenylmeth- anediisocyanate	101-68-8	DNEL	0.05 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
4,4'-diphenylmeth- anediisocyanate	101-68-8	DNEL	0.1 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
1,2,4-trimethylbenzene	95-63-6	DNEL	100 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic ef- fects
1,2,4-trimethylbenzene	95-63-6	DNEL	100 mg/m ³	human, inhalatory	worker (industry)	acute - systemic ef- fects
1,2,4-trimethylbenzene	95-63-6	DNEL	100 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
1,2,4-trimethylbenzene	95-63-6	DNEL	100 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
1,2,4-trimethylbenzene	95-63-6	DNEL	16,171 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

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Relevant DNELs of components

Relevant DIVLES OF	Relevant Divers of Components										
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time					
Polymethylene poly- phenylene isocyanate	9016-87-9 32055-14-4	DNEL	0.05 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects					
Polymethylene poly- phenylene isocyanate	9016-87-9 32055-14-4	DNEL	0.1 mg/m³	human, inhalatory	worker (industry)	acute - local effects					
1-isocyanato-2-({4-isocyanato-3-[(4-isocyanatophenyl)methyl]phenyl}methyl]-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene	9016-87-9	DNEL	0.05 mg/m³	human, inhalatory	worker (industry)	chronic - local effects					
1-isocyanato-2-({4-isocyanato-3-[(4-isocyanatophenyl)methyl]phenyl}methyl]-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene	9016-87-9	DNEL	0.1 mg/m³	human, inhalatory	worker (industry)	acute - local effects					
2-methoxy-1-methyl- ethyl acetate	108-65-6	DNEL	275 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects					
2-methoxy-1-methyl- ethyl acetate	108-65-6	DNEL	550 mg/m ³	human, inhalatory	worker (industry)	acute - local effects					
2-methoxy-1-methyl- ethyl acetate	108-65-6	DNEL	796 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects					
xylene	1330-20-7	DNEL	221 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic ef- fects					
xylene	1330-20-7	DNEL	442 mg/m³	human, inhalatory	worker (industry)	acute - systemic ef- fects					
xylene	1330-20-7	DNEL	221 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects					
xylene	1330-20-7	DNEL	442 mg/m³	human, inhalatory	worker (industry)	acute - local effects					
xylene	1330-20-7	DNEL	212 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects					
ethyl benzene	100-41-4	DNEL	77 mg/m³	human, inhalatory	worker (industry)	chronic - systemic ef- fects					
ethyl benzene	100-41-4	DNEL	293 mg/m ³	human, inhalatory	worker (industry)	acute - local effects					
ethyl benzene	100-41-4	DNEL	180 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects					

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Relevant DNELs of components

	'					
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
cumene	98-82-8	DNEL	100 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic ef- fects
cumene	98-82-8	DNEL	250 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
cumene	98-82-8	DNEL	15.4 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects
toluene	108-88-3	DNEL	192 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
toluene	108-88-3	DNEL	384 mg/m³	human, inhalatory	worker (industry)	acute - systemic ef- fects
toluene	108-88-3	DNEL	192 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
toluene	108-88-3	DNEL	384 mg/m³	human, inhalatory	worker (industry)	acute - local effects
toluene	108-88-3	DNEL	384 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects
propylene oxide	75-56-9	DNEL	2.4 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
propylene oxide	75-56-9	DNEL	170 mg/m³	human, inhalatory	worker (industry)	acute - local effects

Relevant PNECs of components

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
4,4'-diphenylmeth- anediisocyanate	101-68-8	PNEC	1 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)
4,4'-diphenylmeth- anediisocyanate	101-68-8	PNEC	0.1 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
4,4'-diphenylmeth- anediisocyanate	101-68-8	PNEC	1 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
4,4'-diphenylmeth- anediisocyanate	101-68-8	PNEC	1 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)
1,2,4-trimethylbenzene	95-63-6	PNEC	0.12 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)
1,2,4-trimethylbenzene	95-63-6	PNEC	0.12 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
1,2,4-trimethylbenzene	95-63-6	PNEC	2.41 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
1,2,4-trimethylbenzene	95-63-6	PNEC	13.56 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instance)
1,2,4-trimethylbenzene	95-63-6	PNEC	13.56 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instance)

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Relevant PNECs of components

Relevant PNECS of Components						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
1,2,4-trimethylbenzene	95-63-6	PNEC	2.34 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)
Polymethylene poly- phenylene isocyanate	9016-87-9 32055-14-4	PNEC	3.7 ^{µg} / _l	aquatic organisms	freshwater	short-term (single instance)
Polymethylene poly- phenylene isocyanate	9016-87-9 32055-14-4	PNEC	0.37 ^{µg} / _l	aquatic organisms	marine water	short-term (single instance)
Polymethylene poly- phenylene isocyanate	9016-87-9 32055-14-4	PNEC	11.7 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instance)
Polymethylene poly- phenylene isocyanate	9016-87-9 32055-14-4	PNEC	1.17 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instance)
Polymethylene poly- phenylene isocyanate	9016-87-9 32055-14-4	PNEC	2.33 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)
1-isocyanato-2-({4-isocyanato-3-[(4-isocyanatophenyl)methyl]phenyl}methyl]-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene	9016-87-9	PNEC	1 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)
1-isocyanato-2-({4-isocyanato-3-[(4-isocyanatophenyl)methyl]phenyl}methyl]-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene	9016-87-9	PNEC	0.1 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
1-isocyanato-2-({4-isocyanato-3-[(4-isocyanatophenyl)methyl]phenyl}methyl]-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanatophenyl)methyl]benzene	9016-87-9	PNEC	1 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)

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Relevant PNECs of components

	of components					
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
1-isocyanato-2-({4-isocyanato-3-[(4-isocyanatophenyl)methyl]phenyl}methyl]-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene	9016-87-9	PNEC	1 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)
2-methoxy-1-methyl- ethyl acetate	108-65-6	PNEC	0.635 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)
2-methoxy-1-methyl- ethyl acetate	108-65-6	PNEC	0.064 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
2-methoxy-1-methyl- ethyl acetate	108-65-6	PNEC	100 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2-methoxy-1-methyl- ethyl acetate	108-65-6	PNEC	3.29 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instance)
2-methoxy-1-methyl- ethyl acetate	108-65-6	PNEC	0.329 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instance)
2-methoxy-1-methyl- ethyl acetate	108-65-6	PNEC	0.29 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)
xylene	1330-20-7	PNEC	0.327 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in- stance)
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} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
xylene	1330-20-7	PNEC	12.46 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instance)
xylene	1330-20-7	PNEC	12.46 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single in- stance)
xylene	1330-20-7	PNEC	2.31 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)
ethyl benzene	100-41-4	PNEC	0.1 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)
ethyl benzene	100-41-4	PNEC	0.01 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
ethyl benzene	100-41-4	PNEC	9.6 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
ethyl benzene	100-41-4	PNEC	13.7 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instance)

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Relevant PNECs of components

Nelevant i NECS of components						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
ethyl benzene	100-41-4	PNEC	1.37 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single in- stance)
ethyl benzene	100-41-4	PNEC	2.68 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)
cumene	98-82-8	PNEC	0.035 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in- stance)
cumene	98-82-8	PNEC	0.004 ^{mg} / _l	aquatic organisms	marine water	short-term (single in- stance)
cumene	98-82-8	PNEC	200 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)
cumene	98-82-8	PNEC	3.22 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single in- stance)
cumene	98-82-8	PNEC	0.322 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single in- stance)
cumene	98-82-8	PNEC	0.624 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)
toluene	108-88-3	PNEC	0.68 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in- stance)
toluene	108-88-3	PNEC	0.68 ^{mg} / _l	aquatic organisms	marine water	short-term (single in- stance)
toluene	108-88-3	PNEC	13.61 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)
toluene	108-88-3	PNEC	16.39 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single in- stance)
toluene	108-88-3	PNEC	16.39 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single in- stance)
toluene	108-88-3	PNEC	2.89 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)
benzene	71-43-2	PNEC	1.9 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in- stance)
benzene	71-43-2	PNEC	1.9 ^{mg} / _l	aquatic organisms	marine water	short-term (single in- stance)
benzene	71-43-2	PNEC	39 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)
benzene	71-43-2	PNEC	33 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single in- stance)
benzene	71-43-2	PNEC	33 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single in- stance)
benzene	71-43-2	PNEC	4.8 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)
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Relevant PNECs of components

	· · · · · · · · · · · · · · · · · · ·					
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
propylene oxide	75-56-9	PNEC	0.052 ^{mg} / _l	aquatic organisms	freshwater	short-term (single instance)
propylene oxide	75-56-9	PNEC	0.005 ^{mg} / _l	aquatic organisms	marine water	short-term (single instance)
propylene oxide	75-56-9	PNEC	10 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
propylene oxide	75-56-9	PNEC	0.245 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single in- stance)
propylene oxide	75-56-9	PNEC	0.025 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single in- stance)
propylene oxide	75-56-9	PNEC	0.019 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)

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 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.

- Other protection measures

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

Respiratory protection

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.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid			
Color	not determined			
Particle	not relevant (liquid)			
Odor	characteristic			

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	≥-20 °C at 101.3 kPa
Flash point	41.7 °C
Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)

Explosive limits

- Lower explosion limit (LEL)	1.4 vol%	
- Upper explosion limit (UEL)	7.6 vol%	
Vapor pressure	≤240 kPa at 37.8 °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
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VOC Content g/L	246	
Oxidizing properties	none	
Explosive properties	none	
Viscosity	not determined	
Auto-ignition temperature	183 °C (auto-ignition temperature (liquids and gases))	

SECTION 10: Stability and reactivity

10.1 Reactivity

9.2

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

If heated:

Risk of ignition

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

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

Toxic if inhaled.

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- Acute toxicity estimate (ATE)

Inhalation: vapor >8.352 ^{mg}/_l/4h

Acute toxicity estimate (ATE) of components

CAS No	Exposure route	ATE
26447-40-5	inhalation: vapor	11 ^{mg} / _l /4h
101-68-8	inhalation: dust/mist	0.368 ^{mg} / _l /4h
26447-40-5	inhalation: vapor	11 ^{mg} / _l /4h
95-63-6	inhalation: vapor	11 ^{mg} / _l /4h
9016-87-9	inhalation: vapor	0.5 ^{mg} / _l /4h
9016-87-9	inhalation: dust/mist	0.368 ^{mg} / _I /4h
1330-20-7	dermal	1,100 ^{mg} / _{kg}
1330-20-7	inhalation: vapor	11 ^{mg} / _I /4h
100-41-4	inhalation: vapor	11 ^{mg} / _l /4h
75-56-9	oral	382 ^{mg} / _{kg}
75-56-9	dermal	300 ^{mg} / _{kg}
75-56-9	inhalation: vapor	3 ^{mg} / _l /4h
	26447-40-5 101-68-8 26447-40-5 95-63-6 9016-87-9 9016-87-9 1330-20-7 1330-20-7 100-41-4 75-56-9 75-56-9	26447-40-5 inhalation: vapor 101-68-8 inhalation: dust/mist 26447-40-5 inhalation: vapor 95-63-6 inhalation: vapor 9016-87-9 inhalation: dust/mist 1330-20-7 dermal 1330-20-7 inhalation: vapor 100-41-4 inhalation: vapor 75-56-9 oral 75-56-9 dermal

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

May cause cancer.

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IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
			Hanibei
ethyl benzene	100-41-4	2B	
Titanium dioxide (excluding nanoparticle)	13463-67-7	2B	
methylenediphenyl diisocyanate	101-68-8	3	
benzene	71-43-2	1	
acetaldehyde	75-07-0	2B	
acetaldehyde	75-07-0	1	
propylene oxide	75-56-9	2B	
1-isocyanato-2-({4-isocyanato-3-[(4-isocyanatophenyl)methyl]phenyl}methyl)-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene	9016-87-9	3	
cumene	98-82-8	2B	
4,4'-diphenylmethanediisocyanate	101-68-8	3	
toluene	108-88-3	3	
xylene	1330-20-7	3	
Carbon black	1333-86-4	2B	
Polymethylene polyphenylene isocyanate	9016-87-9	3	
Methylenediphenyl diisocyanate	101-68-8	3	

Legend

Carcinogenic to humans Possibly carcinogenic to humans Not classifiable as to carcinogenicity in humans 2B 3

National Toxicology Program (United States): Report on Carcinogens

3, 3			
Name of substance	CAS No	Classification	Number
benzene	71-43-2	Known to be a human carcinogen	1st Report on Carcinogens
acetaldehyde	75-07-0	Reasonably anticipated to be a human carcino- gen	6th Report on Carcinogens
propylene oxide	75-56-9	Reasonably anticipated to be a human carcino- gen	6th Report on Carcinogens
cumene	98-82-8	Reasonably anticipated to be a human carcino- gen	13th Report on Carcinogens

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National Toxicology Program (United States): Report on Carcinogens

Name of substance	CAS No	Classification	Number
Carbon black	1333-86-4	Known to be human carcinogens	1st Report on Carcinogens

29 CFR 1910/1915/1926 Occupational Safety and Health Standards: Toxic and Hazardous Substances (carcinogens)

Name of substance	CAS No	Type of registration
benzene	71-43-2	GI §1910.1028, SE §1915.1028, CI §1926.1128

Legend

CI §1926.1128 Construction Industry (29 CFR 1926.1128)
GI §1910.1028 General Industry (29 CFR 1910.1028)
SE §1915.1028 Shipyard Employment (29 CFR 1915.1028)

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

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.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of \geq 0.1%.

12.7 Other adverse effects

Data are not available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

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.

SECTION 14: Transport information

14	.1	UN	num	ber

DOT UN 1263 IMDG-Code UN 1263

14.2 UN proper shipping name

DOT Paint
IMDG-Code PAINT

14.3 Transport hazard class(es)

DOT 3 IMDG-Code 3

14.4 Packing group

DOT III IMDG-Code III

14.5 Environmental hazards non-environmentally hazardous acc. to the danger-

ous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to IMO instruments

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) - Additional information

Particulars in the shipper's declaration UN1263, Paint, (contains: Solvent naphtha (petro-

leum), light arom., 4,4'-diphenylmethanediisocy-

anate), 3, III

Reportable quantity (RQ) 15,873 lbs (7,206 kg) (xylene) (4,4'-diphenylmethanediisocyanate)

Danger label(s) 3

FLAMMAGE UNITO

Special provisions (SP) 367, B1, B52, B131, IB3, T2, TP1, TP29

ERG No 128

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant Danger label(s) 3



Special provisions (SP) 163, 223, 367, 955

Excepted quantities (EQ) E1 Limited quantities (LQ) 5 L EmS F-E, $\underline{S-E}$

Stowage category A

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

not assigned

SECTION 15: Regulatory information

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

Toxic Substance Control Act (TSCA)

all ingredients are listed (ACTIVE) or exempt from

listing

Superfund Amendment and Reauthorization Act (SARA TITLE III)

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

The List of Extremely Hazardous Substances and Their Threshold Planning Quantities

Name of substance	CAS No	Notes	Reportable quant- ity (pounds)	Threshold plan- ning quantity (pounds)
propylene oxide	75-56-9	f	100	10000

Legend

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f Chemical on the original list that does not meet toxicity criteria but because of its acute lethality, high production volume and known risk is considered chemical of concern ("Other chemicals"). (November 17, 1986, and February 15, 1990.)



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- Specific Toxic Chemical Listings (EPCRA Section 313)

Polymethylene polyphenylene isocyanate

Toxics Release Inventory: Specific Toxic Chemical Listings CAS No ethyl benzene 100-41-4 1986-12-31 benzene 71-43-2 1986-12-31 acetaldehyde 75-07-0 1986-12-31 propylene oxide 1986-12-31 75-56-9 1-isocyanato-2-({4-isocyanato-3-[(4-isocy-9016-87-9 1994-12-31 anatophenyl)methyl]phenyl}methyl)-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene 1,2,4-trimethylbenzene 95-63-6 1986-12-31 1986-12-31 98-82-8 cumene 4,4'-diphenylmethanediisocyanate 101-68-8 1986-12-31 toluene 108-88-3 1986-12-31 xylene 1330-20-7 1986-12-31

1994-12-31

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

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

9016-87-9

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
ethyl benzene	100-41-4		1 2 3	1000 (454)
benzene	71-43-2	a	1 2 3 4	10 (4,54)
acetaldehyde	75-07-0		1 3 4	1000 (454)
propylene oxide	75-56-9		1 3	100 (45,4)
cumene	98-82-8		3 4	5000 (2270)
4,4'-diphenylmethanediisocyanate	101-68-8		3	5000 (2270)
toluene	108-88-3		1 2 3 4	1000 (454)

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Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
xylene	1330-20-7		1 3 4	100 (45,4)
n-butyl acetate	123-86-4		1	5000 (2270)

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
- "4" indicates that the source is section 12 of the Clean All Act
 "4" indicates that the source is section 3001 of the Resource Conservation and Recovery Act (RCRA)

 Benzene was already a CERCLA hazardous substance prior to the CAA Amendments of 1990 and received an adjusted 10-pound RQ based on potential carcinogenicity in an August 14, 1989, final rule (54 FR 33418). The CAA Amendments specify that "benzene (including benzene from gasoline)" is a hazardous air pollutant and, thus, a CERCLA hazardous substance.

Clean Air Act

Name of substance	CAS No	Type of registra- tion	Basis for listing	Threshold quantity (lbs)
acetaldehyde	75-07-0	Flammable sub- stance	g	10000
propylene oxide	75-56-9	Toxic substance	b	10000

Legend

On EHS list, vapor pressure 10 mmHg or greater.

Volatile flammable liquid

Right to Know Hazardous Substance List

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

Name of substance	CAS No	Functionality	Authoritative Lists
Methylenediphenyl diisocyanate	26447-40-5		EC Annex VI Resp. Sens Cat. 1 Hazard Traits identified by DTSC
Carbon black	1333-86-4		IARC Carcinogens - 2B Prop 65
Titanium dioxide (excluding nanoparticle)	13463-67-7		IARC Carcinogens - 2B Prop 65
Solvent naphtha (petroleum), light arom.	64742-95-6		EC Annex VI CMRs - Cat. 1B
4,4'-diphenylmethanediisocyanate	101-68-8		CA TACs EC Annex VI Resp. Sens Cat. 1 Hazard Traits identified by DTSC IRIS Neurotoxicants OEHHA RELs
methylenediphenyl diisocyanate	26447-40-5		EC Annex VI Resp. Sens Cat. 1 Hazard Traits identified by DTSC
1,2,4-trimethylbenzene	95-63-6		CA NLs IRIS Neurotoxicants
Polymethylene polyphenylene isocyanate	9016-87-9		OEHHA RELS

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Name of substance	CAS No	Functionality	Authoritative Lists
1-isocyanato-2-({4-isocyanato-3-[(4-isocyanatophenyl)methyl)phenyl}methyl)-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene	9016-87-9		OEHHA RELS
xylene	1330-20-7		ATSDR Neurotoxicants CA MCLs CA TACs IRIS Neurotoxicants OEHHA RELs
ethyl benzene	100-41-4		ATSDR Neurotoxicants CA MCLs CA TACs CWA 303(c) IARC Carcinogens - 2B OEHHA RELs Prop 65
cumene	98-82-8		CA NLs CA TACs IARC Carcinogens - 2B NTP 13th RoC - reasonable OEHHA RELs Prop 65
benzene	71-43-2		ATSDR Neurotoxicants CA MCLs CA TACs CWA 303(c) EC Annex VI CMRs - Cat. 1A EC Annex VI CMRs - Cat. 1B IARC Carcinogens - 1 IRIS Carcinogens - A NTP 13th RoC - known OEHHA RELs Prop 65
toluene	108-88-3		ATSDR Neurotoxicants CA MCLs CA TACs CWA 303(c) IRIS Neurotoxicants OEHHA RELs Prop 65
acetaldehyde	75-07-0		CA TACs EC Annex VI CMRs - Cat. 1B IARC Carcinogens - 2B IRIS Carcinogens - B2 IRIS Neurotoxicants NTP 13th RoC - reasonable OEHHA RELs Prop 65
propylene oxide	75-56-9		CA TACs EC Annex VI CMRs - Cat. 1B IARC Carcinogens - 2B IRIS Carcinogens - B2 NTP 13th RoC - reasonable OEHHA RELs Prop 65

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- Toxic or Hazardous Substance List (MA-TURA)

Name of substance	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshold	De Minimis Concen- tration Threshold
ethyl benzene	100-41-4				0.1 %
methylenediphenyl diisocyanate		1050			1.0 %
benzene	71-43-2				1.0 %
acetaldehyde	75-07-0				0.1 %
propylene oxide	75-56-9				1.0 %
1,2,4-trimethylbenzene	95-63-6				1.0 %
cumene	98-82-8				0.1 %
4,4'-diphenylmethanediisocyanate		1050			1.0 %
toluene	108-88-3				1.0 %
xylene	1330-20-7				1.0 %
n-butyl acetate	123-86-4		LHS		1.0 %
Methylenediphenyl diisocyanate		1050			1.0 %

- Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
Titanium dioxide (excluding nanoparticle)	13463-67-7	A	
methylenediphenyl diisocyanate		N	
1,2,4-trimethylbenzene	25551-13-7	A	
4,4'-diphenylmethanediisocyanate	101-68-8	A, N, O	
Carbon black	1333-86-4	A, N, O, R, *	
Methylenediphenyl diisocyanate		N	

Legend

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Substances which are regulated by OSHA as carcinogens; have been categorized by the ACGIH as either "human carcinogens" or "suspect of carcinogenic potential for man"; have been evaluated by the International Agency for Research on Cancer (IARC) and found to be carcinogens or potential carcinogens; or have been listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP).

American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physic-

Α al Agents and Biological Exposure Indices for 1992-93", available from ACGIH

Ν 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 Trans-

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, Oc-0 cupational Safety and Health Division

R International Agency for Research on Cancer (IARC) Monographs on the Evaluation of the Carcinogenic Risks to Humans; Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42, Supplement 7 (1987). Available from: WHO Publications Centre USA



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- Hazardous Substance List (NJ-RTK)

Trazardous Substance List (NJ KTK)			
Name of substance	CAS No	Remarks	Classifications
ethyl benzene	100-41-4		CA F3
Titanium dioxide (excluding nanoparticle)	13463-67-7		
methylenediphenyl diisocyanate			
benzene	71-43-2		CA MU F3
acetaldehyde	75-07-0		CA MU TE F4 R2
propylene oxide	75-56-9		CA MU F4 R2
1-isocyanato-2-({4-isocyanato-3-[(4-isocyanatophenyl)methyl]phenyl}methyl)-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene	9016-87-9		
1,2,4-trimethylbenzene	95-63-6		F2
cumene	98-82-8		F3 R1
4,4'-diphenylmethanediisocyanate	101-68-8		R1
toluene	108-88-3		TE F3
xylene	1330-20-7		F3
n-butyl acetate	123-86-4		F3
Carbon black	1333-86-4		CA
Polymethylene polyphenylene isocyanate	9016-87-9		
Methylenediphenyl diisocyanate			

Legend CA F2 F3 F4 MU R1 R2 TE Carcinogenic Flammable - Second Degree Flammable - Third Degree Flammable - Fourth Degree Mutagenic Reactive - First Degree Reactive - Second Degree Teratogenic

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

Name acc. to inventory	CAS No	Classification
BENZENE, ETHYL-	100-41-4	E
TITANIUM OXIDE (TIO2)	13463-67-7	
BENZENE, 1,1'-METHYLENEBIS[4-ISOCYANATO-	101-68-8	E
PSEUDOCUMENE	95-63-6	E
BENZENE, (1-METHYLETHYL)-	98-82-8	E
BENZENE, 1,1'-METHYLENEBIS[4-ISOCYANATO-	101-68-8	E
BENZENE, DIMETHYL-	1330-20-7	E
ACETIC ACID, BUTYL ESTER	123-86-4	E
CARBON BLACK	1333-86-4	
BENZENE, 1,1'-METHYLENEBIS[4-ISOCYANATO-	101-68-8	E

Legend

E Environmental hazard

- Hazardous Substance List (RI-RTK)

Name of substance	CAS No	References
ethyl benzene	100-41-4	T, F
Titanium dioxide (excluding nanoparticle)	13463-67-7	Т
methylenediphenyl diisocyanate	101-68-8	Т
methylenediphenyl diisocyanate	101-68-8	Т
methylenediphenyl diisocyanate	101-68-8	Т
benzene	71-43-2	T, F, C
acetaldehyde	75-07-0	T, F
propylene oxide	75-56-9	T, F
1,2,4-trimethylbenzene	25551-13-7	Т
cumene	98-82-8	T, F
4,4'-diphenylmethanediisocyanate	101-68-8	Т
4,4'-diphenylmethanediisocyanate	101-68-8	Т
4,4'-diphenylmethanediisocyanate	101-68-8	Т
toluene	108-88-3	T, F
toluene	108-88-3	T, F
toluene	108-88-3	T, F
xylene	1330-20-7	T, F

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Name of substance	CAS No	References
xylene	1330-20-7	T, F
xylene	1330-20-7	T, F
n-butyl acetate	123-86-4	T, F
Carbon black	1333-86-4	Т
Methylenediphenyl diisocyanate	101-68-8	Т
Methylenediphenyl diisocyanate	101-68-8	Т
Methylenediphenyl diisocyanate	101-68-8	Т

Legend

C Carcinogenicity (IARC)
F Flammability (NFPA®)
T Toxicity (ACGIH®)

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	Remarks	Type of the toxicity
ethylbenzene	100-41-4		cancer
titanium dioxide	13463-67-7	airborne, unbound particles of respirable size	cancer
benzene	71-43-2		cancer
benzene	71-43-2		developmental, male
acetaldehyde	75-07-0		cancer
propylene oxide	75-56-9		cancer
cumene	98-82-8		cancer
toluene	108-88-3		developmental
carbon black	1333-86-4	airborne, unbound particles of respirable size	cancer

Industry or sector specific available guidance(s)

NPCA-HMIS® III

 $\label{thm:matter} \textit{Hazardous Materials Identification System. American Coatings Association.}$

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Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	2	temporary or minor injury may occur
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temper- atures before ignition can occur
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	-	

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	2	material that must be moderately heated or exposed to relatively high ambient temper- atures before ignition can occur
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

Country	Inventory	Status
NZ	NZIoC	not all ingredients are listed
AU	AIIC	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	not all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

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Legend

15.2

AIIC Australian Inventory of Industrial Chemicals Chemical Inventory and Control Regulation CICR

CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS)

DSL Domestic Substances List (DSL)

EC Substance Inventory (EINECS, ELINCS, NLP) **ECSI**

IECSC Inventory of Existing Chemical Substances Produced or Imported in China

INSQ National Inventory of Chemical Substances

Inventory of Existing and New Chemical Substances (ISHA-ENCS)
Korea Existing Chemicals Inventory ISHA-ENCS

KECI NZIoC

New Zealand Inventory of Chemicals
Philippine Inventory of Chemicals and Chemical Substances (PICCS) PICCS

REACH Reg. REACH registered substances

TCSI Taiwan Chemical Substance Inventory **TSCA Toxic Substance Control Act**

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

Key literature references and sources for data

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

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).

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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