

acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

1 Ide	1 Identification								
1.1	Product identifier								
	Trade name	POR-15 CLEAR							
	Product code(s)	45101, 45104, 45105, 45108, 45155							
1.2	Relevant identified uses of the substance or mixtu	ire 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.							

2 Hazard identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

Section	Hazard class	Category	Hazard class and cat- egory	Hazard state- ment
2.6	flammable liquid	3	Flam. Liq. 3	H226
3.1I	acute toxicity (inhal.)	3	Acute Tox. 3	H331
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.4R	respiratory sensitization	1	Resp. Sens. 1	H334
3.4S	skin sensitization	1	Skin Sens. 1	H317
3.5	germ cell mutagenicity	1B	Muta. 1B	H340
3.6	carcinogenicity	1A	Carc. 1A	H350
3.8R	specific target organ toxicity - single exposure (respiratory tract irritation)	3	STOT SE 3	H335
3.9	specific target organ toxicity - repeated exposure	2	STOT RE 2	H373
3.10	aspiration hazard	1	Asp. Tox. 1	H304

Revision: 2024-02-15



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

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

Labeling

GHS08

- Signal word danger
- Pictograms



- Hazard statements

H226	Flammable liquid and vapour.
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

recoulding state	
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284	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 or 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+P364	Take off contaminated clothing and wash it 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.
P403+P235	Store in a well-ventilated place. Keep cool.



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

Precautionary statements
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'-methylenediphenyl diisocyanate, 1-isocyanato-2-({4-isocyanato-3-[(4isocyanatophenyl)methyl]phenyl}methyl)-4-[(4-isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4isocyanatophenyl)methyl]benzene; 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene, methylenediphenyl diisocyanate

2.3 Other hazards

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 $\ge 0.1\%$.

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	30-<60	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
Solvent naphtha (petroleum), light arom.	CAS No 64742-95-6	10 - < 30	Flam. Liq. 1 / H224 Muta. 1B / H340 Carc. 1A / H350 Asp. Tox. 1 / H304
4,4'-methylenediphenyl diisocy- anate	CAS No 101-68-8	10-<30	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 / H335 STOT RE 2 / H373
1,2,4-trimethylbenzene	CAS No 95-63-6	5-<10	Flam. Liq. 3 / H226 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335 Asp. Tox. 1 / H304



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1) Revision: 2024-02-15

Name of substance	Identifier	Wt%	Classification acc. to GHS
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-isocyanato-2-({4-isocyanato-3-[(4- isocyanatophenyl)methyl]phenyl}m ethyl)-4-[(4- isocyanatophenyl)methyl]benzene; 1-isocyanato-2-[(4-isocy- anatophenyl)methyl]benzene; 1-iso- cyanato-4-[(4- isocyanatophenyl)methyl]benzene	CAS No 9016-87-9	1-<5	Acute Tox. 2 / H330

Remarks

For full text of abbreviations: see SECTION 16

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.

4.3 Indication of any immediate medical attention and special treatment needed

none



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

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.

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.

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.



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

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.

8 Exposure controls/ Personal protection

8.1 Control parameters

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 [mg/m³]	Nota- tion	Source
CA	diphenylmethane- 4,4'-diisocyanate (methylbis(phenyl- isocyanate)) (4,4'- MDI)	101-68-8	OEL (AB)	0.005	0.05						OHS Code



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

Occup	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
CA	methylbis(phenyl- isocyanate) (4,4'- MDI)	101-68-8	OEL (BC)	0.005				0.01			"BC Reg- ulation"
CA	methylbis(phenyl- isocyanate) (4,4'- MDI)	101-68-8	OEL (ON)	0.005				0.02			Regula- tion 833
CA	methylbis(phenyl- isocyanate) (4,4'- MDI)	101-68-8	OEL (ON- MoL)	0.005				0.02			MoL
CA	methylenebis(p- phenyl isocyanate) (4,4'-MDI)	101-68-8	PEV/ VEA	0.005	0.051						Regula- tion OHS
CA	Polymethylene polyphenyl isocy- anate (PAPI)	9016-87-9	OEL (AB)	0.005	0.07						OHS Code
CA	1,2,4-trimethylben- zene	95-63-6	OEL (BC)	25							"BC Reg- ulation"

Notation

Ceiling-C ceiling value is a limit value above which exposure should not occur

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 timeweighted average (unless otherwise specified

Relevant DNELs of components									
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time			
4,4'-methylenediphen- yl diisocyanate	101-68-8	DNEL	0.05 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects			
4,4'-methylenediphen- yl diisocyanate	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 ef- fects			



Г

Safety Data Sheet

acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

=

Version number: GHS 2.0
Replaces version of: 2023-02-13 (GHS 1)

Relevant DNELs of components										
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time				
1-isocyanato-2-({4-iso- cyanato-3-[(4-isocy- anatophenyl)methyl]p henyl}methyl)-4-[(4-iso- cyanatophenyl)methyl] benzene; 1-isocyanato- 2-[(4-isocy- anatophenyl)methyl]b enzene; 4-[(4-isocy- anatophenyl)methyl]b enzene	9016-87-9	DNEL	0.05 mg/m³	human, inhalatory	worker (industry)	chronic - local effects				
1-isocyanato-2-({4-iso- cyanato-3-[(4-isocy- anatophenyl)methyl]p henyl}methyl)-4-[(4-iso- cyanatophenyl)methyl] benzene; 1-isocyanato- 2-[(4-isocy- anatophenyl)methyl]b enzene; 4-[(4-isocy- anatophenyl)methyl]b enzene	9016-87-9	DNEL	0.1 mg/m³	human, inhalatory	worker (industry)	acute - local effects				

Relevant PNECs of components									
Name of substance	Name of substance CAS No		Threshold level	Organism	Environmental com- partment	Exposure time			
4,4'-methylenediphen- yl diisocyanate	101-68-8	PNEC	1 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in- stance)			
4,4'-methylenediphen- yl diisocyanate	101-68-8	PNEC	0.1 ^{mg} / _l	aquatic organisms	marine water	short-term (single in- stance)			
4,4'-methylenediphen- yl diisocyanate	101-68-8	PNEC	1 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)			
4,4'-methylenediphen- yl diisocyanate	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 in- stance)			
1,2,4-trimethylbenzene	95-63-6	PNEC	0.12 ^{mg} / _l	aquatic organisms	marine water	short-term (single in- stance)			
1,2,4-trimethylbenzene	95-63-6	PNEC	2.41 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)			
1,2,4-trimethylbenzene	95-63-6	PNEC	13.56 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single in- stance)			
1,2,4-trimethylbenzene	95-63-6	PNEC	13.56 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single in- stance)			



Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

Safety Data Sheet

acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Relevant PNECs of components						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental com- partment	Exposure time
1,2,4-trimethylbenzene	95-63-6	PNEC	2.34 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)
1-isocyanato-2-{{4-iso- cyanato-3-[(4-isocy- anatophenyl)methyl]p henyl}methyl)-4-[(4-iso- cyanatophenyl)methyl]b benzene; 1-isocyanato- 2-[(4-isocy- anatophenyl)methyl]b enzene; 1-isocyanato- 4-[(4-isocy- anatophenyl)methyl]b enzene	9016-87-9	PNEC	1 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in- stance)
1-isocyanato-2-({4-iso- cyanato-3-[(4-isocy- anatophenyl)methyl]p henyl}methyl)-4-[(4-iso- cyanatophenyl)methyl]b benzene; 1-isocyanato- 2-[(4-isocy- anatophenyl)methyl]b enzene; 1-isocyanato- 4-[(4-isocy- anatophenyl)methyl]b enzene	9016-87-9	PNEC	0.1 ^{mg} / _l	aquatic organisms	marine water	short-term (single in- stance)
1-isocyanato-2-({4-iso- cyanato-3-[(4-isocy- anatophenyl)methyl]p henyl}methyl)-4-[(4-iso- cyanatophenyl)methyl] benzene; 1-isocyanato- 2-[(4-isocy- anatophenyl)methyl]b enzene; 1-isocyanato- 4-[(4-isocy- anatophenyl)methyl]b enzene	9016-87-9	PNEC	1 ^{mg} /l	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)
1-isocyanato-2-({4-iso- cyanato-3-[(4-isocy- anatophenyl)methyl]p henyl}methyl)-4-[(4-iso- cyanatophenyl)methyl] benzene; 1-isocyanato- 2-[(4-isocy- anatophenyl)methyl]b enzene; 1-isocyanato- 4-[(4-isocy- anatophenyl)methyl]b enzene	9016-87-9	PNEC	1 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1) Revision: 2024-02-15

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.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Color	not determined
Odor	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	≥-20 °C at 101.3 kPa
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	1.4 vol% - 7.6 vol%
Flash point	47.7 °C
Auto-ignition temperature	\geq 280 °C (auto-ignition temperature (liquids and gases))
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	not determined
Solubility(ies)	not determined



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Partition coefficient n-octanol/water (log value)	this information is not available
Vapor pressure	≤240 kPa at 37.8 °C
Density and/or relative density	
Density	not determined
Relative vapour density	information on this property is not available
Relative vapour density	information on this property is not available

9.2 Other information

Information with regard to physical hazard classes	there is no additional information
Other safety characteristics	
VOC content	247 g/L

10 Stability and reactivity

10.1 Reactivity

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



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

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.

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 GHS

Acute toxicity

Toxic if inhaled.

- Acute toxicity estimate (ATE)

Inhalation: vapour >7.402 ^{mg}/l/4h

Acute toxicity estimate (ATE) of components					
Name of substance	CAS No	Exposure route	ATE		
Methylenediphenyl diisocyanate	26447-40-5	inhalation: vapour	11 ^{mg} / _l /4h		
4,4'-methylenediphenyl diisocyanate	101-68-8	inhalation: dust/mist	0.368 ^{mg} / _l /4h		
1,2,4-trimethylbenzene	95-63-6	inhalation: vapour	11 ^{mg} / _l /4h		
methylenediphenyl diisocyanate	26447-40-5	inhalation: vapour	11 ^{mg} / _l /4h		
1-isocyanato-2-({4-isocyanato-3-[(4-isocy- anatophenyl)methyl]phenyl}methyl)-4-[(4-isocy- anatophenyl)methyl]benzene; 1-isocyanato-2-[(4- isocyanatophenyl)methyl]benzene; 1-isocyanato-4- [(4-isocyanatophenyl)methyl]benzene	9016-87-9	inhalation: vapour	>0.5 ^{mg} / _l /4h		
1-isocyanato-2-{{4-isocyanato-3-[(4-isocy- anatophenyl)methyl]phenyl}methyl)-4-[(4-isocy- anatophenyl)methyl]benzene; 1-isocyanato-2-[(4- isocyanatophenyl)methyl]benzene; 1-isocyanato-4- [(4-isocyanatophenyl)methyl]benzene	9016-87-9	inhalation: dust/mist	0.368 ^{mg} / _l /4h		

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.



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

Carcinogenicity

May cause cancer.

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.

12 Ecological information

12.1 Toxicity

Г

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Solvent naphtha (petro- leum), light arom.	64742-95-6	LL50	8.2 ^{mg} / _l	fish	96 h
Solvent naphtha (petro- leum), light arom.	64742-95-6	EL50	4.5 ^{mg} / _l	aquatic invertebrates	48 h
4,4'-methylenediphenyl diisocyanate	101-68-8	LC50	>1,000 ^{mg} / _l	fish	96 h
4,4'-methylenediphenyl diisocyanate	101-68-8	EC50	129.7 ^{mg} / _l	aquatic invertebrates	24 h
1,2,4-trimethylbenzene	95-63-6	LC50	7.72 ^{mg} / _l	fish	96 h
1,2,4-trimethylbenzene	95-63-6	EC50	2.356 ^{mg} / _l	algae	96 h
1-isocyanato-2-({4-isocy- anato-3-[(4-isocy- anatophenyl)methyl]phe nyl}methyl)-4-[(4-isocy- anatophenyl)methyl]ben- zene; 1-isocyanato-2-[(4- isocyanatophenyl)methyl] benzene; 1-isocyanato-4- [(4- isocyanatophenyl)methyl] benzene	9016-87-9	LC50	>1,000 ^{mg} / _l	fish	96 h



Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

Safety Data Sheet

acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Aquatic toxicity (acute) of components						
Name of substance	CAS No	Endpoint	Value	Species	Exposure tim	
1-isocyanato-2-{{4-isocy- anato-3-[(4-isocy- anatophenyl)methyl]phe nyl}methyl)-4-[(4-isocy- anatophenyl)methyl]ben- zene; 1-isocyanato-2-[(4- socyanatophenyl)methyl] benzene; 1-isocyanato-4- [(4- socyanatophenyl)methyl] benzene	9016-87-9	EC50	129.7 ^{mg} / _l	aquatic invertebrates	24 h	
Aquatic toxicity (chro	onic) of compone	nts				
Name of substance	CAS No	Endpoint	Value	Species	Exposure tim	
Solvent naphtha (petro- leum), light arom.	64742-95-6	EL50	10 ^{mg} / _l	fish	21 d	
Solvent naphtha (petro- leum), light arom.	64742-95-6	EC50	15.41 ^{mg} / _l	microorganisms	40 h	
4,4'-methylenediphenyl diisocyanate	101-68-8	ErC50	>1,640 ^{mg} / _l	algae	3 d	
4,4'-methylenediphenyl diisocyanate	101-68-8	EC50	>100 ^{mg} / _l	microorganisms	3 h	
1-isocyanato-2-({4-isocy- anato-3-[(4-isocy- anatophenyl)methyl]phe nyl}methyl)-4-[(4-isocy- anatophenyl)methyl]ben- zene; 1-isocyanato-2-[(4- isocyanatophenyl)methyl] benzene; 1-isocyanato-4- [(4- isocyanatophenyl)methyl] benzene	9016-87-9	ErC50	>1,640 ^{mg} / _l	algae	3 d	
1-isocyanato-2-{{4-isocy- anato-3-[(4-isocy- anatophenyl)methyl]phe nyl}methyl]-4-[(4-isocy- anatophenyl)methyl]ben- zene; 1-isocyanato-2-[(4- socyanatophenyl)methyl] benzene; 1-isocyanato-4- [(4- socyanatophenyl)methyl] benzene	9016-87-9	EC50	>100 ^{mg} / _l	microorganisms	3 h	

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

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 $\ge 0.1\%$.

12.7 Other adverse effects

Data are not available.

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 the Dangerous Goods Regulations) 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.

14 Transport information

14.1 UN number

14.1	UN number	
	UN RTDG	UN 1992
	IMDG-Code	UN 1992
	ICAO-TI	UN 1992
14.2	UN proper shipping name	
	UN RTDG	FLAMMABLE LIQUID, TOXIC, N.O.S.
	IMDG-Code	FLAMMABLE LIQUID, TOXIC, N.O.S.
	ICAO-TI	Flammable liquid, toxic, n.o.s.
	Technical name (hazardous ingredients)	4,4'-methylenediphenyl diisocyanate, Solvent naph- tha (petroleum), light arom.
14.3	Transport hazard class(es)	
	UN RTDG	3 (6.1)
	IMDG-Code	3 (6.1)
	ICAO-TI	3 (6.1)



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

ICAO-TIIII**14.5Environmental 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

Transport information - National regulations - Additional information (UN RTDG)						
UN number	1992					
Class	3					
Subsidiary risk(s)	6.1					
Packing group	III					
Danger label(s)	3+6.1					
Special provisions (SP)	223, 274 (UN RTDG)					
Excepted quantities (EQ)	E1 (UN RTDG)					
Limited quantities (LQ)	5 L (UN RTDG)					
International Maritime Dangerous Goods	Code (IMDG) - Additional information					
Marine pollutant	-					
Danger label(s)	3+6.1					
Special provisions (SP)	223, 274					
Excepted quantities (EQ)	E1					
Limited quantities (LQ)	5 L					
EmS	F-E, S-D					
Stowage category	A					



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

International Civil Aviation Organization (ICAO-IX-/DGR) - Additional informationDanger label(s)3+6.1Image: Special provisions (SP)A3Excepted quantities (EQ)E1Limited quantities (LQ)2 L

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

Revision: 2024-02-15

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings				
Name of substance	CAS No	Remarks	Effective date	
1-isocyanato-2-({4-isocyanato-3-[(4-isocy- anatophenyl)methyl]phenyl}methyl)-4-[(4-isocy- anatophenyl)methyl]benzene; 1-isocyanato-2- [(4-isocyanatophenyl)methyl]benzene; 1-isocy- anato-4-[(4-isocyanatophenyl)methyl]benzene			1994-12-31	
1,2,4-trimethylbenzene	95-63-6		1986-12-31	
4,4'-methylenediphenyl diisocyanate	101-68-8		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	Remarks	Statutory code	Final RQ pounds (Kg)
4,4'-methylenediphenyl diisocyanate	101-68-8		3	5000 (2270)

Legend

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

Right to Know Hazardous Substance List

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



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

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
Solvent naphtha (petroleum), light arom.	64742-95-6		EC Annex VI CMRs - Cat. 1B
4,4'-methylenediphenyl diisocyanate	101-68-8		CA TACs EC Annex VI Resp. Sens Cat. 1 Hazard Traits identified by DTSC IRIS Neurotoxicants OEHHA RELs
1,2,4-trimethylbenzene	95-63-6		CA NLs IRIS Neurotoxicants
methylenediphenyl diisocyanate	26447-40-5		EC Annex VI Resp. Sens Cat. 1 Hazard Traits identified by DTSC
1-isocyanato-2-({4-isocyanato-3-[(4-isocy- anatophenyl)methyl]phenyl}methyl)-4-[(4-isocy- anatophenyl)methyl]benzene; 1-isocyanato-2- [(4-isocyanatophenyl)methyl]benzene; 1-isocy- anato-4-[(4-isocyanatophenyl)methyl]benzene	9016-87-9		OEHHA RELS

- 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
methylenediphenyl diisocyanate		1050			1.0 %
1,2,4-trimethylbenzene	95-63-6				1.0 %
4,4'-methylenediphenyl diisocyanate		1050			1.0 %
Methylenediphenyl diisocyanate		1050			1.0 %

- Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
methylenediphenyl diisocyanate		Ν	
1,2,4-trimethylbenzene	25551-13-7	А	
4,4'-methylenediphenyl diisocyanate	101-68-8	A, N, O	
Methylenediphenyl diisocyanate		Ν	

Legend

 O 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

A 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
N National Institute for Occupational Safety and Health (NIOSH), "Recommendations for Occupational Safety and Health Standards,"

N 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



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
methylenediphenyl diisocyanate			
1-isocyanato-2-({4-isocyanato-3-[(4-isocy- anatophenyl)methyl]phenyl}methyl)-4-[(4-isocy- anatophenyl)methyl]benzene; 1-isocyanato-2- [(4-isocyanatophenyl)methyl]benzene; 1-isocy- anato-4-[(4-isocyanatophenyl)methyl]benzene	9016-87-9		
1,2,4-trimethylbenzene	95-63-6		F2
4,4'-methylenediphenyl diisocyanate	101-68-8		R1
Methylenediphenyl diisocyanate			

Legend

F2 Flammable - Second Degree

R1 Reactive - First Degree

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

Name acc. to inventory	CAS No	Classification
BENZENE, 1,1'-METHYLENEBIS[4-ISOCYANATO-	101-68-8	E
PSEUDOCUMENE	95-63-6	E
BENZENE, 1,1'-METHYLENEBIS[4-ISOCYANATO-	101-68-8	E
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
methylenediphenyl diisocyanate	101-68-8	Т
methylenediphenyl diisocyanate	101-68-8	т
methylenediphenyl diisocyanate	101-68-8	Т
1,2,4-trimethylbenzene	25551-13-7	Т
4,4'-methylenediphenyl diisocyanate	101-68-8	т
4,4'-methylenediphenyl diisocyanate	101-68-8	Т
4,4'-methylenediphenyl diisocyanate	101-68-8	т
Methylenediphenyl diisocyanate	101-68-8	Т
Methylenediphenyl diisocyanate	101-68-8	Т
Methylenediphenyl diisocyanate	101-68-8	Т

Legend T

Toxicity (ACGIH®)



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

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	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 resid- ual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National regulations (Canada)

Domestic Substances List (DSL)/Non-domestic Substances List (NDSL)

All ingredients are listed or exempt from listing.

Domestic Substances List (DSL)

All ingredients are listed.

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



acc. to Hazardous Products Regulations (HPR)

POR-15 CLEAR

Revision: 2024-02-15

Version number: GHS 2.0 Replaces version of: 2023-02-13 (GHS 1)

Country	Inventory	Status
JP	CSCL-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)

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

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

16 Other information

Key literature references and sources for data

Hazardous Products Regulations (HPR) SOR/2022-272: Regulations Amending the Hazardous Products Regulations (GHS, Seventh Revised Edition)

UN Recommendations on the Transport of Dangerous Good. 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.