SAFETY DATA SHEET

Version #: 01 Issue date: 07-25-2023

SECTION 1: Identification	of the substance/mixture and of the company/undertaking
1.1. Product identifier	
Trade name or designation of the mixture	Flexane GP Putty Resin
Registration number	-
Synonyms	None.
SKU#	X0025B
1.2. Relevant identified uses of	the substance or mixture and uses advised against
Identified uses	Not available.
Uses advised against	None known.
1.3. Details of the supplier of the	e safety data sheet
Supplier	
Company name	ITW Performance Polymers
Address	Bay 150 Shannan Industrial Estate
	Shannon Industrial Estate Co. Clare, Ireland
Division	
Telephone	Phone 353(61)771500
e-mail	customerservice.shannon@itwpp.com
Contact person	Not available.
1.4. Emergency telephone number	Emergency Number 44(0)1235 239 670
General in EU	112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Austria National Poisons Information Center	+431 406 4343 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Belgium National Poisons Control Center	070 245 245 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Bulgaria National Toxicological Information Center	+359 2 9154 233 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Croatia Poisons Information Center	+385 1 2348 342 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Cyprus Poison Center	1401 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Czech Republic National Poisons Information Center	+420 224 919 293, or +420 224 915 402 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Denmark National Poisons Control Center	+45 82 12 12 12 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Estonia National Poisons Information Center	16662 or abroad: (+372) 626 9390 (Monday 9:00AM to Saturday 9:00AM (closed on Sundays and on national holidays). SDS/Product information may not be available for the Emergency Service.)
Finland National Poison Information Center	(09) 471 977 (direct) or (09) 4711 (exchange) (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
France National Poisons Control Center	ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Greece Poison Information Centre	(0030) 2107793777 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Hungary National Emergency Phone Number	+36-80-201-199 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Iceland Poison Center	(+354) 543 2222 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Latvia Emergency medical aid	113
Latvia Poison and Drug Information Center	+371 67042473 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Lithuania Neatidėliotina informacija apsinuodijus	+370 5 236 20 52 or +37068753378 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Malta Accident and Emergency Department	2545 4030 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Netherlands National Poisons Information Center (NVIC)	NVIC: +31 (0)88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications)
Norway Norwegian Poison Information Center	22 59 13 00 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Portugal Poison Center	800 250 250 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Romania Biroul RSI si Informare Toxicologica	021.318.36.06 (Available 8:00AM-3:00PM. SDS/Product information may not be available for the Emergency Service.)
Slovakia National Toxicological Information Center	+421 2 5477 4166 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Spain Toxicology Information Service	+ 34 91 562 04 20 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Sweden National Poison Information Center	112 - and ask for Poison Information (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Switzerland Tox Info Suisse	145 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards		
Respiratory sensitization	Category 1	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization	Category 1	H317 - May cause an allergic skin reaction.
Carcinogenicity	Category 2	H351 - Suspected of causing cancer.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended UFI:

Austria: V740-N0MY-K000-7GNU Belgium: V740-N0MY-K000-7GNU Bulgaria: V740-N0MY-K000-7GNU Croatia: V740-N0MY-K000-7GNU Cyprus: V740-N0MY-K000-7GNU Czech Republic: V740-N0MY-K000-7GNU Denmark: V740-N0MY-K000-7GNU Estonia: V740-N0MY-K000-7GNU EU: V740-N0MY-K000-7GNU Finland: V740-N0MY-K000-7GNU France: V740-N0MY-K000-7GNU Germany: V740-N0MY-K000-7GNU Greece: V740-N0MY-K000-7GNU Hungary: V740-N0MY-K000-7GNU Iceland: V740-N0MY-K000-7GNU Ireland: V740-N0MY-K000-7GNU Italy: V740-N0MY-K000-7GNU Latvia: V740-N0MY-K000-7GNU Lithuania: V740-N0MY-K000-7GNU Luxembourg: V740-N0MY-K000-7GNU Malta: V740-N0MY-K000-7GNU Netherlands: V740-N0MY-K000-7GNU Norway: V740-N0MY-K000-7GNU Poland: V740-N0MY-K000-7GNU Portugal: V740-N0MY-K000-7GNU Romania: V740-N0MY-K000-7GNU Slovakia: V740-N0MY-K000-7GNU Slovenia: V740-N0MY-K000-7GNU Spain: V740-N0MY-K000-7GNU Sweden: V740-N0MY-K000-7GNU 4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate,

Contains:

Hazard pictograms



methylenediphenyl diisocy

Danger May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing cancer.

4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisocyanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisocyanate; [2] o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate; [3]

Precautionary statements

Hazard statements

Signal word

H317

H334

H351

Prevention	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing mist/vapors.
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	Wear respiratory protection.
Response	
P302 + P352	IF ON SKIN: Wash with plenty of water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P362 + P364	Take off contaminated clothing and wash it before reuse.
Storage	
P405	Store locked up.
Disposal	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
Supplemental label information	3% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

			ingredients		
3.2. Mixtures					
General information					
Chemical name		%	CAS-No. / EC No.	REACH Registration No.	Index No. Notes
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-is	socyanat	1-2%	5124-30-1 225-863-2	-	615-009-00-0
e	lastian	а I т			04 (ATE 0
		mg/I), Skin Sens. 1;H3	Irrit. 2;H315, Eye Irri 317, STOT SE 3;H33		334, Skin
Specific Concentration	Limits:	Resp. Sen	s. 1;H334: C ≥ 0.5 %	, Skin Sens. 1;H317: C ≥ 0.5	5 %
4,4'-methylenediphenyl diisocy diphenylmethane4,4'-diisocya 2,2'-methylenediphenyl diisocy diphenylmethane2,2'-diisocya o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocya [3] methylenediphenyl diisocy	nate; [1] yanate; nate; [2] anate;	1-2%	101-68-8 202-966-0	-	615-005-00-9
		Acute Tox	4·H332·(ATE: 11 m	g/I), Skin Irrit. 2;H315, Eye Ir	rit 2·H319
0.000		Resp. Sen		s. 1;H317, Carc. 2;H351, ST(
Specific Concentration			;H315: C ≥ 5 %, Eye ≥ 0.1 %, STOT SE 3	Irrit. 2;H319: C ≥ 5 %, Resp ;H335: C ≥ 5 %	o. Sens.
Other components below repo	ortable				
levels					
-	ols that n	nay be use	ed above		
ATE: Acute toxicity estimate. M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as	y bioaccu tive and t ssigned l	imulative s oxic substa Jnion work	ubstance. ance. place exposure limit(ercent by volume.
ATE: Acute toxicity estimate. M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as All concentrations are in perce	y bioaccu tive and t ssigned l ent by we	imulative s oxic substa Jnion work ight unless	ubstance. ance. place exposure limit(Gas concentrations are in pe	ercent by volume.
ATE: Acute toxicity estimate. M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as All concentrations are in perce	y bioaccu tive and t ssigned t ent by we The ful	imulative s oxic substa Jnion work ight unless	ubstance. ance. place exposure limit(s ingredient is a gas.	Gas concentrations are in pe	ercent by volume.
ATE: Acute toxicity estimate. M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as All concentrations are in perce Composition comments SECTION 4: First aid meas	y bioaccu tive and t ssigned l ent by we The ful sures	imulative s oxic substa Jnion work ight unless I text for all	ubstance. ance. place exposure limit(ingredient is a gas. I H-statements is disp	Gas concentrations are in pe played in section 16.	- -
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ATE: Acute toxicity estimate. M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as All concentrations are in perce Composition comments SECTION 4: First aid meas General information	y bioaccu tive and t ssigned l ent by we The ful sures IF expo of the r clothing	imulative s oxic substa Jnion work ight unless I text for all osed or cor material(s)	ubstance. ance. place exposure limit(ingredient is a gas. H-statements is disp ncerned: Get medical involved, and take pr	Gas concentrations are in pe played in section 16. advice/attention. Ensure that	at medical personnel are awar
ATE: Acute toxicity estimate. M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as All concentrations are in perce Composition comments SECTION 4: First aid meas General information	y bioaccu tive and t ssigned U ent by we The ful sures IF expo of the r clothing sures If breat Oxyger substat valve o	imulative s oxic substa Jnion work ight unless I text for all osed or cor naterial(s) g before re hing is diffi n or artificia nce. Induce	ubstance. ance. place exposure limit(s ingredient is a gas. H-statements is disp acerned: Get medical involved, and take pr use. cult, remove to fresh al respiration if neede e artificial respiration	Gas concentrations are in per- played in section 16. advice/attention. Ensure that recautions to protect themsel air and keep at rest in a pos	at medical personnel are awar lves. Wash contaminated sition comfortable for breathing th method if victim inhaled the k equipped with a one-way
ATE: Acute toxicity estimate. M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as All concentrations are in perce composition comments SECTION 4: First aid meas General information	y bioaccu tive and t ssigned U ent by we The ful sures IF expo of the r clothing sures If breat Oxyger substat valve o poison Remov	imulative s oxic substa Jnion work ight unless I text for all osed or cor material(s) g before re hing is diffi n or artificia nce. Induce or other pro center or cor re contamir	ubstance. ance. place exposure limit(s ingredient is a gas. H-statements is disp neerned: Get medical involved, and take pr use. cult, remove to fresh al respiration if neede e artificial respiration per respiratory medic loctor/physician. nated clothing immed	Gas concentrations are in per- played in section 16. advice/attention. Ensure that ecautions to protect themsel air and keep at rest in a post d. Do not use mouth-to-mout with the aid of a pocket mas	at medical personnel are awar lves. Wash contaminated sition comfortable for breathing ith method if victim inhaled the k equipped with a one-way spiratory symptoms: Call a ap and water. In case of
ATE: Acute toxicity estimate. M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as All concentrations are in perce composition comments SECTION 4: First aid meas General information .1. Description of first aid meas Inhalation	y bioaccu tive and t ssigned U The ful Sures IF expo of the r clothing sures If breat Valve o poison Remov eczema	International and the second state of the seco	ubstance. ance. place exposure limit(ingredient is a gas. H-statements is disp neerned: Get medical involved, and take pr use. cult, remove to fresh al respiration if neede e artificial respiration per respiratory medic loctor/physician. nated clothing immed skin disorders: Seek r	Gas concentrations are in peoplayed in section 16. advice/attention. Ensure that ecautions to protect themsel air and keep at rest in a post d. Do not use mouth-to-mouth with the aid of a pocket mas cal device. If experiencing re- iately and wash skin with so	at medical personnel are awar lves. Wash contaminated sition comfortable for breathing th method if victim inhaled the k equipped with a one-way spiratory symptoms: Call a ap and water. In case of long these instructions.
ATE: Acute toxicity estimate. M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as All concentrations are in perce composition comments SECTION 4: First aid meas General information .1. Description of first aid meas Inhalation Skin contact	y bioaccu tive and t ssigned U ent by we The ful sures IF expo of the r clothing sures If breat Oxyger substat valve o poison Remov eczema	imulative s oxic substa Jnion work ight unless I text for all osed or cor naterial(s) g before re hing is diffi n or artificia nce. Induce or other pro center or cor re contamir a or other s with water.	ubstance. ance. place exposure limit(ingredient is a gas. H-statements is disp neerned: Get medical involved, and take pr use. cult, remove to fresh al respiration if neede e artificial respiration per respiratory medic loctor/physician. nated clothing immed skin disorders: Seek r	Gas concentrations are in per- played in section 16. advice/attention. Ensure that ecautions to protect themsel air and keep at rest in a post d. Do not use mouth-to-mout with the aid of a pocket mas cal device. If experiencing re- iately and wash skin with so medical attention and take all in if irritation develops and per-	at medical personnel are awar lves. Wash contaminated sition comfortable for breathing th method if victim inhaled the k equipped with a one-way spiratory symptoms: Call a ap and water. In case of long these instructions.
ATE: Acute toxicity estimate. M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as All concentrations are in perce Composition comments SECTION 4: First aid meas General information 4.1. Description of first aid meas Inhalation Skin contact Eye contact Ingestion 4.2. Most important symptoms and effects, both acute and	y bioaccu tive and t ssigned U ent by we The ful sures IF expo of the r clothing sures If breat Oxyger substar valve o poison Remov eczema Rinse v	imulative s oxic substa Jnion work ight unless I text for all osed or cor material(s) g before re thing is diffi n or artificia nce. Induce or other pro center or cor re contamir a or other s with water. mouth. Get	ubstance. ance. place exposure limit(s ingredient is a gas. H-statements is disp neerned: Get medical involved, and take pr use. cult, remove to fresh al respiration if neede e artificial respiration per respiratory medic loctor/physician. nated clothing immed skin disorders: Seek r Get medical attention medical attention if s	Gas concentrations are in per- played in section 16. advice/attention. Ensure that ecautions to protect themsel air and keep at rest in a post d. Do not use mouth-to-mout with the aid of a pocket mas cal device. If experiencing re- iately and wash skin with so medical attention and take all in if irritation develops and per-	at medical personnel are awar lves. Wash contaminated sition comfortable for breathing ith method if victim inhaled the k equipped with a one-way spiratory symptoms: Call a ap and water. In case of long these instructions.
M: M-factor vPvB: very persistent and very PBT: persistent, bioaccumulat #: This substance has been as All concentrations are in perce Composition comments SECTION 4: First aid meas General information 4.1. Description of first aid meas Inhalation Skin contact Eye contact	y bioaccu tive and t ssigned U The ful Sures IF expo of the r clothing sures If breat Valve o poison Remov eczema Rinse v Difficul	Imulative s oxic substa Jnion work ight unless I text for all osed or cor material(s) g before re hing is diffi n or artificia for other pro center or co center or co re contamir a or other s with water. mouth. Get ty in breath	ubstance. ance. place exposure limit(ingredient is a gas. H-statements is disp neerned: Get medical involved, and take pr use. cult, remove to fresh al respiration if neede e artificial respiration per respiratory medic loctor/physician. nated clothing immed skin disorders: Seek r Get medical attention medical attention if s ing. May cause an al	Gas concentrations are in per- played in section 16. advice/attention. Ensure that ecautions to protect themsel air and keep at rest in a post ed. Do not use mouth-to-mout with the aid of a pocket mas cal device. If experiencing re- iately and wash skin with so- medical attention and take all in if irritation develops and per- symptoms occur. Illergic skin reaction. Dermati	at medical personnel are awar lves. Wash contaminated sition comfortable for breathing ith method if victim inhaled the k equipped with a one-way spiratory symptoms: Call a ap and water. In case of long these instructions.

General fire hazards

No unusual fire or explosion hazards noted.

5.1. Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising from the substance or mixture	During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Special fire fighting procedures	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, prote	ctive equipment and emergency procedures			
For non-emergency personnel	Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.			
For emergency responders	Keep unnecessary personnel away. Ensure adequate ventilation. Avoid breathing mist/vapors. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.			
6.2. Environmental precautions	Avoid discharge into drains, water courses or onto the ground.			
6.3. Methods and material for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.			
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.			
	Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers.			
6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.			
SECTION 7: Handling and	storage			
7.1. Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.			
7.2. Conditions for safe	Store locked up. Store in tightly closed container. Store in a well-ventilated place. Store away from			

incompatible materials (see Section 10 of the SDS). storage, including any

7.3. Specific end use(s) Observe industrial sector guidance on best practices.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

incompatibilities

Occupational exposure limits

Austria. MAK List, OEL Ordinance Components	Туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	Ceiling	0,054 mg/m3	
		0,005 ppm	
	MAK	0,054 mg/m3	
		0,005 ppm	

Austria. MAK List, OEL Ordinance (GwV), BGBI. II, no. 184/2001, as amended

Components	Туре	Value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	Ceiling	0,1 mg/m3	
	MAK	0,01 ppm 0,05 mg/m3	
		-	
		0,005 ppm	

Belgium. OEL. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1 - Chemical agents, as amended

Components	Туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	TWA	0,055 mg/m3	
		0,005 ppm	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	TWA	0,052 mg/m3	
		0,005 ppm	

Bulgaria. OELs. Ordinance No 13 on protection of workers against risks of exposure to chemical agents at work, as amended

Components	Туре	Value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	STEL	0,07 mg/m3	
	TWA	0,05 mg/m3	

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended Components Type Value

Components	lype	Value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	TWA	0,2 mg/m3	
		0,02 ppm	

Czech Republic. Occupational exposure limit values of chemicals at work (Decree on protection of health at work, 361/2007, Annex 2, Part A & Annex 3, Part A, as amended)

Components	Туре	Value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	Ceiling	0,1 mg/m3	
	TWA	0,05 mg/m3	
Denmark Work Environment Auth	ority Exposure Limits for Su	hstancos 8 Matorials, Annov 2	

Denmark. Work Environment Authority. Exposure Limits for Substances & Materials, Annex 2

Components	Туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	TLV	0,054 mg/m3	
		0,005 ppm	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	TLV	0,05 mg/m3	
(0,005 ppm	

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended Components Type Value

components	туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	STEL	0,01 ppm	
	TWA	0,005 ppm	

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended Components Type Value

	- 71		
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	STEL	0,1 mg/m3	
	TWA	0,01 ppm 0,05 mg/m3	
		0,005 ppm	

Finland. HTP-arvot, App 3., Binding Limit Values, Social Affairs and Ministry of Health

Components		Туре	-	Value	
4,4'-methylenedi(cyclohex isocyanate); dicyclohexylmethane-4,4'- -isocyanate (CAS 5124-30-1)		STEL		0,035 mg/m3	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diiso yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diiso yanate; [2] o-(p-isocyanatobenzyl)phe yl isocyanate; diphenylmethane-2,4'-diiso yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	oc en oc	STEL		0,035 mg/m3	
France. Threshold Limit Components	Values (VLEP) for	Occupational Type	I Exposure to Chemic	als in France, INRS ED 984 Value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diiso yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diiso yanate; [2] o-(p-isocyanatobenzyl)phe yl isocyanate; diphenylmethane-2,4'-diiso yanate; [3] methylenediphenyl diisocy (CAS 101-68-8) Regulatory status:	oc en oc	VLE		0,2 mg/m3	
		-,		0,02 ppm	
Regulatory status:	Indicative limit (VL	_) VME		0,1 mg/m3	
Regulatory status:	Indicative limit (VL				
Regulatory status:	Indicative limit (VL	_)		0,01 ppm	

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as updated

Components	Туре	Value	Form
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	TWA	0,05 mg/m3	Inhalable fraction.

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Туре	Value	Form
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	AGW	0,05 mg/m3	Inhalable fraction.

Greece. OELs, Presidential Decree No. 307/1986, as amended

Components	Туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	STEL	0,11 mg/m3	
		0,01 ppm	
	TWA	0,11 mg/m3	
		0,01 ppm	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	STEL	0,2 mg/m3	
		0,02 ppm	
	TWA	0,2 mg/m3	
		0,02 ppm	

Hungary. OELs. Decree on protection of workers exposed to chemical agents (5/2020. (II.6)), Annex 1&2, as amended Components Type Value

Components	Type	value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	STEL	0,05 mg/m3	
	TWA	0,05 mg/m3	

Iceland. OELs. Regulation 390/2009 on Po	ollution Limits and Measures to Rec	duce Pollution at the Workplace, as amended
Components	Туре	Value

components	туре	value
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS	TWA	0,054 mg/m3
5124-30-1)		
		0,005 ppm
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	STEL	0,1 mg/m3
		0,01 ppm
	TWA	0,05 mg/m3
		0,005 ppm
Ireland. OELVs, Schedules 1 & 2, C Components	ode of Practice for Chemica Type	I Agents and Carcinogens Regulations Value
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	STEL	0,07 mg/m3
	TWA	0,005 ppm
Italy. OELs (Legislative Decree n.8 Components	1, 9 April 2008), as amended Type	Value
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS	TWA	0,005 ppm

Italy. OELs (Legislative Decree n.81, 9 April 2008), as amended Components Type

Components	Туре	Value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	TWA	0,005 ppm	
		sigal Substances (Hygians Norm HN 22:204)	

Lithuania. OELs. Occupational Exposure Limit Values for Chemical Substances (Hygiene Norm HN 23:2011; Order No. V-824/A1-389), as amended

Components	Туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	Ceiling	0,01 ppm	
	TWA	0,005 ppm	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	Ceiling	0,1 mg/m3	
		0,01 ppm	
	TWA	0,05 mg/m3	

Norway. Regulation No. 1358 on Measures and Limit Values for Physical and Chemical Factors in Work Environment and Infection Groups for Biological Factors, as amended

0,005 ppm

Components	Туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	STEL	0,01 ppm	
	TLV	0,05 mg/m3	
		0,005 ppm	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	STEL	0,01 ppm	
	TLV	0,05 mg/m3	

Norway. Regulation No. 1358 on Measures and Limit Values for Physical and Chemical Factors in Work Environment and Infection Groups for Biological Factors, as amended Components Type Value

0,005 ppm

Poland. Maximum permissible concentrations and intensities of harmful factors in the work environment (Dz.U.Poz. 1286/2018, Annex 1)

Components	Туре	Value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	STEL	0,09 mg/m3	
	TWA	0,03 mg/m3	

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796-2014)

Components	Туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	TWA	0,005 ppm	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	TWA	0,005 ppm	

Romania. OELs. Limit Values of Chemical Agents at Workplace (Regulation 1.218/2006, M.O 845, Annex 1, 3&4, as amended)

Components Type Value	
4,4'-methylenediphenylSTEL0,15 mg/m3diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)0,15 mg/m3	

Slovakia. OELs. Maximum permissible exposure limits for chemical factors in workplace air (Regulation No 355/2006, Annex 1, Table 1, as amended)

Components	Туре	Value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	TWA	0,03 mg/m3	
		0,002 ppm	

Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Annex I), as amended

Components	Туре	Value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	TWA	0,05 mg/m3	
		0,005 ppm	

Spain. OELs. INSST, Límites de Exposición Profesional Para Agentes Químicos, Table 1-Valores Límites Ambientales (VLAs)

Components	Туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	TWA	0,055 mg/m3	
		0,005 ppm	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	TWA	0,052 mg/m3	
()		0,005 ppm	

Components	Туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	Ceiling	0,005 ppm	
	TWA	0,002 ppm	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	Ceiling	0,05 mg/m3	
(0,005 ppm	
	TWA	0,03 mg/m3	
		0,002 ppm	
Switzerland. SUVA Grenzwerte am	Arbeitsplatz: Aktuelle MAK-W	Verte	
Components	Туре	Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)	STEL	0,02 mg/m3	
	TWA	0,02 mg/m3	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	STEL	0,02 mg/m3	
	TWA	0,02 mg/m3	
UK. OELs. Workplace Exposure Li Components	mits (WELs) (EH40/2005 (Fou Type	rth Edition 2020)), Table 1 Value	
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS	STEL	0,07 mg/m3	
5124-30-1)			

Sweden. OELs (Annex 1). Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2018:1), as

UK. OELs. Workplace Exposure Limits (WELs) (EH40/2005 (Fourth Edition 2020)), Table 1 Components Type Value

Components	Туре	Value	
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	STEL	0,07 mg/m3	
	TWA	0,02 mg/m3	

Biological limit values

Hungary. BELs. Decree on protection of workers exposed to chemical agents (5/2020. (II.6)), Annex 3&4, as amendedComponentsValueDeterminantSpecimenSampling Time

Componente	Value	Botorninant	opeennen	camping mile	
diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)		4,4'-Diaminodip henyl following hydrolysis	Urine	*	
	0,01 mg/l	4,4'-Diaminodip henyl following hydrolysis	Urine	*	

* - For sampling details, please see the source document.

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle BAT-Werte

Components	Value	Determinant	Specimen	Sampling Time
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)phen yl isocyanate; diphenylmethane-2,4'-diisoc yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	1 2	4,4'-Diaminodip henylmethan	Creatinine in urine	*
* - For sampling details, plea	ase see the source do	cument.		

UK. BELs. Biological Monitoring Guidance Values (BMGVs) (EH40/2005 (Fourth Edition 2020)), Table 2

Components	Value	Determinant	Specimen	Sampling Time
4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di -isocyanate (CAS 5124-30-1)		Isocyanate-deri ved diamine	Creatinine in urine	*

UK. BELs. Biological Monitoring Guidance Values (BMGVs) (EH40/2005 (Fourth Edition 2020)), Table 2 Components Value Determinant Specimen Sampling Time

Components	Value	Determinant	Specimen	Sampling Time
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisoc yanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisoc yanate; [2] o-(p-isocyanatobenzyl)pher yl isocyanate; diphenylmethane-2,4'-diiso yanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	; n c	Isocyanate-deri ved diamine	Creatinine in urine	*
* - For sampling details, ple Recommended monitoring	ease see the source doct Follow standard mo			
procedures	T Ollow Standard Hio			
Derived no effect levels (DNELs)	Not available.			
Predicted no effect concentrations (PNECs)	Not available.			
Exposure guidelines				
Germany DFG MAK (advi	•			
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisocyanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisocyanate; [2] o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate; [3] methylenediphenyl diisocy (CAS 101-68-8)Can be absorbed through the skin.Germany TRGS 900 Limit Values: Skin designationCan be absorbed through the skin.		gh the skin.		
	liisocyanate; [1] I diisocyanate; Iiisocyanate; [2])phenyl isocyanate; diisocyanate; [3] socy (CAS 101-68-8) ons concerning protec		absorbed throug ainst risks due	gh the skin. to exposure to chemicals while working
(Official Gazette of the Re	• •	O an ha		ala da a a lite
4,4'-methylenedipheny diphenylmethane4,4'-c 2,2'-methylenedipheny diphenylmethane2,2'-c o-(p-isocyanatobenzyl diphenylmethane-2,4'- methylenediphenyl diis Switzerland SUVA Limit V	liisocyanate; [1] I diisocyanate; liisocyanate; [2])phenyl isocyanate; diisocyanate; [3] socy (CAS 101-68-8)		absorbed throuູ າ	gh the skin.
4,4'-methylenedipheny diphenylmethane4,4'-c 2,2'-methylenedipheny diphenylmethane2,2'-c o-(p-isocyanatobenzyl diphenylmethane-2,4'- methylenediphenyl diis	liisocyanate; [1] I diisocyanate; liisocyanate; [2])phenyl isocyanate; diisocyanate; [3]	Can be	absorbed throu	gh the skin.
8.2. Exposure controls	,			
Appropriate engineering controls	applicable, use proc maintain airborne le	cess enclosures, loc evels below recomm	al exhaust venti ended exposure	tes should be matched to conditions. If lation, or other engineering controls to limits. If exposure limits have not been evel. General ventilation normally
Individual protection measure	es, such as personal pr	rotective equipmen	ıt	
General information				al protection equipment should be chosen the supplier of the personal protective

Eye/face protection Skin protection	Chemical respirator with organic vapor cartridge and full facepiece.	
- Hand protection	Wear appropriate chemical resistant gloves.	
- Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.	
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece.	
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.	
Hygiene measures	Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.	
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties		
Physical state	Liquid.	
Form	Liquid.	
Color	Clear.	
Odor	Musty	
Melting point/freezing point	Not available.	
Boiling point or initial boiling point and boiling range	Not available.	
Flammability	Not applicable.	
Flash point	Not available.	
Auto-ignition temperature	Not available.	
Decomposition temperature	Not available.	
рН	Not available.	
Kinematic viscosity	Not available.	
Solubility		
Solubility (water)	Not available.	
Partition coefficient (n-octanol/water) (log value)	Not available.	
Vapor pressure	Not available.	
Density and/or relative density		
Density	1,10 g/cm³	
Vapor density	Not available.	
Particle characteristics	Not available.	
9.2. Other information		
9.2.1. Information with regard to physical hazard classes	No relevant additional information available.	
9.2.2. Other safety characteristics		
Specific gravity	1,1	
SECTION 10: Stability and reactivity		

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidizing agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information

Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure		
Inhalation		
Skin contact	tion.	
Eye contact	ause temporary irritation.	
Ingestion	May cause discomfort if swallov occupational exposure.	ved. However, ingestion is not likely to be a primary route of
Symptoms	Difficulty in breathing. May cause	se an allergic skin reaction. Dermatitis. Rash.
11.1. Information on hazard clas	sses as defined in Regulation (E	C) No 1272/2008
Acute toxicity	Not known.	
Components	Species	Test Results
4,4'-methylenedi(cyclohexyl isocya <u>Acute</u> Dermal LD50	anate); dicyclohexylmethane-4,4'-4 Rabbit	di-isocyanate (CAS 5124-30-1) > 10000 mg/kg
Oral		
LD50	Rat	1065 mg/kg
Skin corrosion/irritation	Based on available data, the cla	assification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the cla	assification criteria are not met.
Respiratory sensitization		mptoms or breathing difficulties if inhaled.
Skin sensitization	May cause an allergic skin reac	
Germ cell mutagenicity		of data the classification is not possible.
Carcinogenicity	Suspected of causing cancer.	
(as amended)		d preventing risk relating to exposure to carcinogens at work -diisocyanate; [1] 2,2'-methylenediphenyl diisocyanate;
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisocyanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisocyanate; [2] o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate methylenediphenyl diisocy (CAS 101-68-8)		
IARC Monographs. Overall Evaluation of Carcinogenicity		3 Not classifiable as to carcinogenicity to humans
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisocyanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisocyanate; [2] o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate; [3] methylenediphenyl diisocy (CAS 101-68-8)		
Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while wor (Official Gazette of the Republic of Slovenia)		kers against risks due to exposure to chemicals while working
4,4'-methylenediphenyl d diphenylmethane4,4'-diis 2,2'-methylenediphenyl d diphenylmethane2,2'-diis o-(p-isocyanatobenzyl)ph diphenylmethane-2,4'-diis methylenediphenyl diisoo	ocyanate; [1] liisocyanate; ocyanate; [2] nenyl isocyanate; socyanate; [3]	Carcinogenic, Category 2.
Reproductive toxicity		of data the classification is not possible.
Specific target organ toxicity - single exposure	Due to partial or complete lack	of data the classification is not possible.
Specific target organ toxicity - repeated exposure	Not applicable.	
Aspiration hazard	Due to partial or complete lack	of data the classification is not possible.
Mixture versus substance information	No information available.	
11.2. Information on other hazards		
Endocrine disrupting properties	to human health as assessed in	ny substances having endocrine disrupting properties with respect accordance with the criteria set out in Regulations (EC) No and (EU) 2018/605, at a concentration equal to or greater than
Other information	Not available.	

SECTION 12: Ecological information		
12.1. Toxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
12.2. Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.	
12.3. Bioaccumulative potential		
Partition coefficient n-octanol/water (log Kow) 4,4'-methylenediphenyl diisocyanate; 5,22 diphenylmethane4,4'-diisocyanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisocyanate; [2] o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate; [3] methylenediphenyl diisocy		
Bioconcentration factor (BCF)	F) Not available.	
12.4. Mobility in soil	No data available.	
12.5. Results of PBT and vPvB assessment	This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.	
12.6. Endocrine disrupting properties	This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.	
12.7. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

SECTION 13: Disposal considerations

13.1. Waste treatment methods	
Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR	
14.1. UN number	Not regulated as dangerous goods.
14.2. UN proper shipping	Not regulated as dangerous goods.
name	
14.3. Transport hazard class	(es)
Class	Not assigned.
Subsidiary risk	-
Hazard No. (ADR)	Not assigned.
Tunnel restriction code	Not assigned.
14.4. Packing group	-
14.5. Environmental hazards	No.
14.6. Special precautions	Not assigned.
for user	
RID	
14.1. UN number	Not regulated as dangerous goods.
14.2. UN proper shipping	Not regulated as dangerous goods.
name	/ 、
14.3. Transport hazard class	(es)
Class	Not assigned.
Subsidiary risk	-
14.4. Packing group	-
14.5. Environmental hazards	
14.6. Special precautions	Not assigned.
for user	

ADN

14.1. UN number	Not regulated as dangerous goods.
14.2. UN proper shipping	Not regulated as dangerous goods.
name	
14.3. Transport hazard class((es)
Class	Not assigned.
Subsidiary risk	-
14.4. Packing group	-
14.5. Environmental hazards	
14.6. Special precautions	Not assigned.
for user	
ΙΑΤΑ	
14.1. UN number	Not regulated as dangerous goods.
14.2. UN proper shipping	Not regulated as dangerous goods.
name	
14.3. Transport hazard class	
Class	Not assigned.
Subsidiary risk	-
14.4. Packing group	-
14.5. Environmental hazards	
14.6. Special precautions	Not assigned.
for user IMDG	
	N () () () ()
14.1. UN number	Not regulated as dangerous goods.
14.2. UN proper shipping	Not regulated as dangerous goods.
name 14.3. Transport hazard class((ac)
-	
Class Subsidiant risk	Not assigned.
Subsidiary risk 14.4. Packing group	-
14.5. Environmental hazards	-
	No.
Marine pollutant EmS	
	Not assigned. Not assigned.
14.6. Special precautions for user	not assigned.
14.7. Maritime transport in bulk	Not established.
according to IMO instruments	

according to IMO instruments

SECTION 15: Regulatory information

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

EU

J	regulations
	Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended Not listed.
	Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended
	Not listed.
	Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended
	Not listed.
	Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended Not listed.
	Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended Not listed.
	Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended
	Not listed.
	Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended Not listed.
	Regulation (EC) No. 1907/2006 REACH Article 59(10) Candidate List as currently published by ECHA

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA Not listed.

Austria: V740-N0MY-K000-7GNU Belgium: V740-N0MY-K000-7GNU Bulgaria: V740-N0MY-K000-7GNU Croatia: V740-N0MY-K000-7GNU Cyprus: V740-N0MY-K000-7GNU Czech Republic: V740-N0MY-K000-7GNU Denmark: V740-N0MY-K000-7GNU Estonia: V740-N0MY-K000-7GNU EU: V740-N0MY-K000-7GNU Finland: V740-N0MY-K000-7GNU France: V740-N0MY-K000-7GNU Germany: V740-N0MY-K000-7GNU Greece: V740-N0MY-K000-7GNU Hungary: V740-N0MY-K000-7GNU Iceland: V740-N0MY-K000-7GNU Ireland: V740-N0MY-K000-7GNU Italy: V740-N0MY-K000-7GNU Latvia: V740-N0MY-K000-7GNU Lithuania: V740-N0MY-K000-7GNU Luxembourg: V740-N0MY-K000-7GNU Malta: V740-N0MY-K000-7GNU Netherlands: V740-N0MY-K000-7GNU Norway: V740-N0MY-K000-7GNU Poland: V740-N0MY-K000-7GNU Portugal: V740-N0MY-K000-7GNU Romania: V740-N0MY-K000-7GNU Slovakia: V740-N0MY-K000-7GNU Slovenia: V740-N0MY-K000-7GNU Spain: V740-N0MY-K000-7GNU Sweden: V740-N0MY-K000-7GNU

Authorizations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended Not listed

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended - Conditions of restriction given for the associated entry number should be considered

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4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisocyanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane2,2'-diisocyanate; [2] o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate; [3] methylenediphenyl diisocy (CAS 101-68-8)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended

Not listed.

Other regulations	The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.
National regulations	According to Directive 92/85/EEC as amended, pregnant women should not work with the product, if there is the least risk of exposure.

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

France regulations

France INRS Table of Occupational Diseases

4,4'-methylenedi(cyclohexyl isocyanate); dicyclohexylmethane-4,4'-di-isocyanate (CAS 5	Affections professionnelles provoquées par les isocyanates 124-30-1) organiques 62
4,4'-methylenediphenyl diisocyanate; diphenylmethane4,4'-diisocyanate; [1]	Affections professionnelles provoquées par les isocyanates organiques 62
2,2'-methylenediphenyl diisocyanate;	organiques oz
diphenylmethane2,2'-diisocyanate; [2] o-(p-isocyanatobenzyl)phenyl isocyanate;	
diphenylmethane-2,4'-diisocyanate; [3] methylenediphenyl diisocy (CAS 101-68-8)	
at registration number	

Product registration number

Austria	UFI: V740-N0MY-K000-7GNU
Belgium	UFI: V740-N0MY-K000-7GNU

Czech Republic	UFI: V740-N0MY-K000-7GNU
Denmark	UFI: V740-N0MY-K000-7GNU
European Union	UFI: V740-N0MY-K000-7GNU
Finland	UFI: V740-N0MY-K000-7GNU
France	UFI: V740-N0MY-K000-7GNU
Germany	UFI: V740-N0MY-K000-7GNU
Greece	UFI: V740-N0MY-K000-7GNU
Hungary	UFI: V740-N0MY-K000-7GNU
Italy	UFI: V740-N0MY-K000-7GNU
Netherlands	UFI: V740-N0MY-K000-7GNU
Norway	UFI: V740-N0MY-K000-7GNU
Poland	UFI: V740-N0MY-K000-7GNU
Portugal	UFI: V740-N0MY-K000-7GNU
Slovakia	UFI: V740-N0MY-K000-7GNU
Slovenia	UFI: V740-N0MY-K000-7GNU
Spain	UFI: V740-N0MY-K000-7GNU
Sweden	UFI: V740-N0MY-K000-7GNU
Switzerland	UFI: V740-N0MY-K000-7GNU
15.2. Chemical safety	No Chemical Safety Assessment has been carried out.
assessment	
SECTION 16: Other in	formation
List of abbreviations	
	ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
	ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.
	AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).
	CAS: Chemical Abstract Service.
	CEN: European Committee for Standardization.
	IATA: International Air Transport Association.
	IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.
	IMDG: International Maritime Dangerous Goods.
	MAC: Maximum Allowed Concentration.
	MARPOL: International Convention for the Prevention of Pollution from Ships.
	PBT: Persistent, bioaccumulative and toxic.
	RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

STEL: Short term exposure limit.

TLV: Threshold Limit Value.

TWA: Time Weighted Average.

VLE: Exposure Limit Value.

VME: Exposure Average Value.

vPvB: Very persistent and very bioaccumulative.

Not available.

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

classification of mixtureFull text of any statements,
which are not written out in full
under sections 2 to 15H302 Harmful if swallowed.
H315 Causes skin irritation

References

Information on evaluation method leading to the

	H315 Causes skin irritation.
	H317 May cause an allergic skin reaction.
	H319 Causes serious eye irritation.
	H331 Toxic if inhaled.
	H332 Harmful if inhaled.
	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	H335 May cause respiratory irritation.
	H351 Suspected of causing cancer.
	H373 May cause damage to organs through prolonged or repeated exposure.
Revision information	None.
Training information	Follow training instructions when handling this material.

ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.