SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006
(amended by Regulation (EU) 2015/830)

Semparoc 60

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code None.

Synonyms None.

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

Use of the Substance/Mixture Wood adhesive.

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification

Collano Adhesives AG
Eichenstrasse 12
CH-6203 Sempach Station
Tel. +41 41 469 92 75
Fax +41 41 469 91 12
www.collano.com
sdb@collano.com

1.4. Emergency telephone number +41 41 469 92 75 (Mo - Fr 8:00 - 17:00 MEZ/CET)
(+41 44 251 51 51 Tox Center)

Issuing date 11.07.2016

Version 9 (Previous versions: 8)

2. Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity, inhal., Vapours, Cat. 4, H332
Skin corrosion/irritation, Cat. 2, H315
Serious eye damage/eye irritation, Cat. 2, H319
Carcinogenicity, Cat. 2, H351
Specific target organ toxicity (single exposure, inhalation), Cat. 3, H335
Specific target organ toxicity (repeated exposure), Cat. 2, H373
Respiratory Sensitisation, Cat. 1, H334
Skin Sensitisation, Cat. 1, H317
Hazardous to the aquatic environment, chronic, Cat. 2, H411

The product is classified and labelled according to Regulation (EC) No. 1272/2008.

Additional information For the full text of the phrases mentioned in this Section, see Section 16.

2.2. Label elements

Signal Word	Danger
Hazard Statements	H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. 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. H411: Toxic to aquatic life with long lasting effects.
Precautionary statements	P101: If medical advice is needed, have product container or label at hand. P102: Keep out of reach of children. P201: Obtain special instructions before use. P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P264: Wash skin thoroughly after handling. 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. P284: Wear respiratory protection. P501: Dispose of contents/ container to an approved waste disposal plant.
Supplemental information	Contains isocyanates. May produce an allergic reaction.
Product identifier	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate, CAS-No. 101-68-8, EC-No. 202-966-0 aromatic poly isocyanate-prepolymer, CAS-No. 99784-49-3 o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate, CAS-No. 5873-54-1, EC-No. 227-534-9
Packaging	Tactile warning of danger (EN/ISO 11683).

2.3. Other hazards

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

3. Composition/information on ingredients

Chemical characterization	Isocyanates. Adhesive.

Components		CLP Classification	Product identifier
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	< 20%	Carc. 2 H351, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Irrit. 2 H315, Resp. Sens. 1 H334, Skin Sens. 1 H317 [CEy2: C ≥ 5 % ¦ CSk2: C ≥ 5 % ¦ SensIn1: C ≥ 0,1 % ¦ SSEIn3: C ≥ 5 %]	CAS-No.: 101-68-8 EC-No.: 202-966-0 Index-No: 615-005-00-9
aromatic poly isocyanate-prepolymer	< 50%	Skin Irrit. 2 H315, Skin Sens. 1 H317, Eye Irrit. 2 H319, Acute Tox. 4 H332, Resp. Sens. 1 H334, STOT SE 3 H335, STOT RE 2 H373i, Aquatic Chronic 2 H411	CAS-No.: 99784-49-3
o-(p-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate	< 20%	Carc. 2 H351, Acute Tox. 4 H332, STOT RE 2 H373, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Irrit. 2 H315, Resp. Sens. 1 H334, Skin Sens. 1 H317 [CEy2: C ≥ 5 % ¦ CSk2: C ≥ 5 % ¦ SensIn1: C ≥ 0,1 % ¦ SSEIn3: C ≥ 5 %]	CAS-No.: 5873-54-1 EC-No.: 227-534-9 Index-No: 615-005-00-9

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities None known.

4. First aid measures

4.1. Description of first aid measures

Inhalation Move to fresh air in case of accidental inhalation of vapours or decomposition products. Consult a physician for severe cases.

Skin contact Wash off with soap and plenty of water. If skin irritation persists, call a physician. Remove contaminated clothing and shoes.

Eye contact If easy to do, remove contact lens, if worn. Rinse immediately with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.

Ingestion Do not induce vomiting without medical advice. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed None known.

4.3. Indication of any immediate medical attention and special treatment needed None known.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water spray. Foam. Dry powder. Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons High volume water jet.

5.2. Special hazards arising from the substance or mixture Fire may cause carbon monoxide, nitrogen oxides, vapours of iscoyanate and traces of cyanic acid to evolve. In the event of fire the following can be released: irritant and toxic fumes.

5.3. Advice for firefighters

Special protective equipment for firefighters	Wear self-contained breathing apparatus and protective suit.
Specific methods	Water mist may be used to cool closed containers. There forms CO2-Gas when in contact with water. This may cause overpressure in closed containers. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel	Ensure adequate ventilation. Keep people away from and upwind of spill/leak.
Advice for emergency responders	Use personal protective equipment.
6.2. Environmental precautions	Do not flush into surface water or sanitary sewer system.
6.3. Methods and material for containment and cleaning up	Use mechanical handling equipment. Cover with wet, liquid binding agent. Put in waste container after about 1 hr. do not cover container (CO2 will arise).

7. Handling and storage

7.1. Precautions for safe handling	Provide sufficient air exchange and/or exhaust in work rooms. Handle with isocyanates usual precautions observed. Avoid contact with skin and eyes. Do not breathe vapours or spray mist. Wash hands and exposed skin before eating, drinking or smoking and after work.
7.2. Conditions for safe storage, including any incompatibilities	Keep containers dry and tightly closed to avoid moisture absorption and contamination.
7.3. Specific end use(s)	No information available.

8. Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)	No data is available on the product itself.

4,4'-methylenediphenyl diisocyanate (CAS 101-68-8)

Switzerland - Biological Limit Values (BAT-Werte)	10 µg/g creatinine Medium: urine Time: end of shift Parameter: 4,4'-Diaminodiphenylmethane
Austria - Occupational Exposure Limits - STELs - (MAK-KZWs)	0.01 ppm STEL [KZW] (listed under Diphenylmethane diisocyanate) 0.1 mg/m3 STEL [KZW] (listed under Diphenylmethane diisocyanate)
Austria - Occupational Exposure Limits - TWAs - (MAK-TMWs)	0.005 ppm TWA [TMW] (listed under Diphenylmethane-diisocyanate) 0.05 mg/m3 TWA [TMW] (listed under Diphenylmethane-diisocyanate)
Germany - DFG - Recommended Exposure Limits - TWAs (MAKs)	0.05 mg/m3 TWA MAK (see also polymeric MDI can occur as vapor and aerosol at the same time, inhalable fraction)
Germany - DFG - Recommended Exposure Limits - Ceilings (Peak Limitations)	0.05 mg/m3 Peak (inhalable fraction)
Germany - TRGS 900 - Occupational Exposure Limits - TWAs (AGWs)	0.05 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, ceiling factor 2, exposure factor 1)
Switzerland - Occupational Exposure Limits - TWAs - (MAKs)	0.02 mg/m3 TWA [MAK] (monomers and prepolymers, as total NCO)
Switzerland - Occupational Exposure	0.02 mg/m3 STEL [KZW] (monomer and prepolymer, as total NCO)

Limits - STELs - (KZWs)	
o-(p-isocyanatobenzyl)phenyl isocyanate (CAS 5873-54-1)	
Austria - Occupational Exposure Limits - STELs - (MAK-KZWs)	0.01 ppm STEL [KZW] (listed under Diphenylmethane diisocyanate) 0.1 mg/m3 STEL [KZW] (listed under Diphenylmethane diisocyanate)
Austria - Occupational Exposure Limits - TWAs - (MAK-TMWs)	0.005 ppm TWA [TMW] (listed under Diphenylmethane-diisocyanate) 0.05 mg/m3 TWA [TMW] (listed under Diphenylmethane-diisocyanate)
Germany - TRGS 900 - Occupational Exposure Limits - TWAs (AGWs)	0.05 mg/m3 TWA AGW (ceiling factor 2, exposure factor 1)

8.2. Exposure controls

Occupational exposure controls	Ensure adequate ventilation, especially in confined areas.
Personal protection equipment	
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment. Respirator with A2/P2 filter. In the case of hypersensitivity of the respiratory airways and skin it is recommended to abstain from using this product
Hand protection	Impervious gloves. Appropriate protection gloves resistant to chemicals (EN 374): polychloroprene Butylrubber. Nitrile rubber. Recommendation: dispose contaminated gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Eye protection	Avoid contact with eyes. Safety glasses with side-shields conforming to EN166.
Skin and body protection	Wear suitable protective clothing.
Thermal hazards	No special measures required.
Environmental exposure controls	No special measures required.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Viscous.
Colour	Yellowish.
Odour	Very faint. Aromatic.
Odour Threshold	No information available.
pH:	No information available.
Melting point/range:	No information available.
Boiling point/range:	No data available.
Flash point:	>100°C
Evaporation Rate:	No information available.
Flammability:	No information available.
Explosion limits:	No information available.
Vapour pressure:	No information available.
Vapor density:	No information available.
Relative density:	1.25g/ml
Water solubility:	hydrolyses
Partition coefficient (n-octanol/water):	No information available.
Autoignition temperature:	Not applicable.
Decomposition temperature:	No information available.
Viscosity:	8'600 mPa.s (20°C)
Combustion/explosion hazards:	not hazardous
Oxidizing properties:	None

9.2. Other information

10. Stability and reactivity

10.1. Reactivity	No information available.
10.2. Chemical stability	No decomposition if stored and applied as directed.
10.3. Possibility of hazardous reactions	No information available.
10.4. Conditions to avoid	Container can be pressurized by carbon dioxide due to reaction with humid air and/or water.
10.5. Incompatible materials	Amines.
10.6. Hazardous decomposition products	None under normal use.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	**4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (CAS 101-68-8)** Inhalation LC50 Rat = 369 mg/m3 4 h(NZ_CCID) Oral LD50 Rat = 31600 mg/kg (JAPAN_GHS)
Skin corrosion/irritation	No data available.
Serious eye damage/eye irritation	No data available.
Respiratory / Skin Sensitisation	May cause sensitisation by inhalation. For oversensibilized persons allergical reactions may occur even at isocyanate concentrations below the MAK-value. After prolonged skin contact tanning and irritating reactions may occur.
Carcinogenicity	No data available.
Germ cell mutagenicity	No data available.
Reproductive toxicity	No data available.
Specific target organ toxicity (single exposure)	No data available.
Specific target organ toxicity (repeated exposure)	No data available.
Aspiration hazard	No data available.
Human experience	No data available.

12. Ecological information

12.1. Toxicity	No data is available on the product itself. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not flush into surface water or sanitary sewer system. Advise water authority if spillage has entered water course or drainage system.
12.2. Persistence and degradability	No data available.
12.3. Bioaccumulative potential	No data available.

12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	No information available.
12.6. Other adverse effects	Reacts with water by forming CO2 as well as an insoluble, solid and chemically inert poly urea.

13. Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of as special waste in compliance with local and national regulations. Do not dispose of waste into sewer. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Contaminated packaging	Empty containers should be taken for local recycling, recovery or waste disposal.

14. Transport information

ADR/RID	UN 3082. Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (aromatic poly isocyanate-prepolymer). Class 9. Packing group III. ADR/RID-Labels 9+ENV. Environmentally hazardous: Yes Classification code M6. Hazard identification no. 90. Limited quantity 5 L. Excepted quantity E1. Tunnel restriction code E
IMDG	UN 3082. Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (aromatic poly isocyanate-prepolymer). Class 9. Packing group III. IMDG-Labels 9+ENV. Limited quantity 5 L. Excepted quantity E1. EmS F-A, S-F. Marine pollutant: Yes.
IATA	UN 3082. Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (aromatic poly isocyanate-prepolymer). Class 9. Packing group III. IATA label 9+ENV. Packing instruction (passenger aircraft): 964 (450 L). Packing instruction (LQ): Y964 (30 kg G). Packing instruction (cargo aircraft): 964 (450 L).

Inland navigation ADN	UN 3082. Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (aromatic poly isocyanate-prepolymer). Class 9. Packing group III. ADN labels 9+ENV. Classification code M6. Limited quantity 5 L. Excepted quantity E1.
Special precautions for user	Protect from moisture.
Further Information	None.

15. Regulatory information

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

Regulatory Information	The product is classified and labelled according to Regulation (EC) No. 1272/2008. Water contaminating class (WGK Germany) = 2. Merkblatt BG Chemie: M050 Umgang mit Gefahrstoffen (für die Beschäftigten) M056 ODIN-Schlüsselverzeichnis "Krebserzeugende Gefahrstoffe"

4,4'-methylenediphenyl diisocyanate (CAS 101-68-8)

EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	Use restricted. See item 56. (Conditions of restrictions 27 December 2010)
EU - REACH (1907/2006) - List of Registered Substances	Present
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes	ID Number 635, hazard class 1 - low hazard to waters

o-(p-isocyanatobenzyl)phenyl isocyanate (CAS 5873-54-1)

EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	Use restricted. See item 56. (Conditions of restrictions 27 December 2010)
EU - REACH (1907/2006) - List of Registered Substances	Present

15.2. Chemical safety assessment	Not required.

16. Other information

Revision Note	Safety datasheet sections which have been updated: 1,2,3,9,15,16.
Key or legend to abbreviations and acronyms	CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)
Full text of phrases referred to under sections 2 and 3	H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. 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 if inhaled. H373: May cause damage to organs through prolonged or repeated exposure. H411: Toxic to aquatic life with long lasting effects.

Disclaimer

It is not to be considered a warranty or quality specification. 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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. 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.