

SAFETY DATA SHEET

2023-07-07 Version 3

Replaces: Version 2, 2022-12-12

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

ERADUR PU 84, B

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

Use: Polyurethane intended for industrial flooring. Comp B

1.3 Details of the supplier of the safety data sheet

Supplier: Eradur AB
Granitgatan 11, SE-254 68 HELSINGBORG, SWEDEN
Tel: 0046-42 29 22 50, Fax: 0046-42 29 22 55
Web: www.eradur.com
info@eradur.com

1.4 Emergency telephone number

Contact National Poison Centre via Hospital or Registered Medical Practitioner

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 1272/2008: Acute Tox. 4; Eye Irrit. 2; STOT SE 3; Skin Irrit. 2; Resp. Sens. 1.



2.2 Label elements

Labelling: GHS 08, GHS 07
Signal word: Danger
Contains: Diphenylmethane diisocyanate, isomers and homologs (MDI)

H-Phrases: 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.

P-Phrases: P201 Obtain special instructions before use.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment (see ... on this label).
P363 Wash contaminated clothing before reuse.
P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P304+P340+P312 IF INHALED: Remove victim to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor/...if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water/...
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P391 Collect spillage.
EUH 204 Contains isocyanates. May produce an allergic reaction.

As of August 24, 2023, appropriate training is required prior to industrial or professional use.

Hazards: The preparation may be sensitising on skin contact It may also irritate the skin and the eyes.

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Repeated exposure may increase this effect.

2.3 Other hazards

The product does not meet the criteria for classification as PBT or vPvB.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Substances classified as hazardous for fire, health and the environment in accordance with applicable regulations of the European Chemicals Agency for the classification and labelling of chemical products and substances with occupational exposure limit values.

COMPONENT	CAS-no	EC-no	Content	Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE)	EC 1272/2008 (*)
4,4'-Methylenediphenyl diisocyanate, oligomers	25686-28-6	500-040-3	50-75%	Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0,1 % STOT SE 3; H335: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 %	Acute Tox. 4, H332; Skin Irrit.2, H315; Resp. Sens.1, H334; Skin Sens. 1, H317 Eye Irrit.2, H319; Carc. 2, H351; STOT SE 3, H335; STOT RE 2, H373;
4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with α-hydro-ω-hydroxypoly(oxy-1,2-ethanediy)l In this contains*	9048-57-1	500-028-8	25-50%	Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0,1 % STOT SE 3; H335: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 %	Acute Tox. 4, H302; Skin Irrit.2, H315; Resp. Sens.1, H334; Skin Sens. 1, H317 Eye Irrit.2, H319; STOT SE 3, H335;
* 4,4'-methylenediphenyl diisocyanate;diphenylmethane-4,4'-diisocyanate	101-68-8	202-966-0	50-75%	Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0,1 % STOT SE 3; H335: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 %	Acute Tox. 4, H332; Skin Irrit.2, H315; Resp. Sens.1, H334; Skin Sens. 1, H317 Eye Irrit.2, H319; Carc. 2, H351; STOT SE 3, H335; STOT RE 2, H373;
o-(p-isocyanatobenzyl)phenyl isocyanate	5873-54-1	227-534-9	0,1-1%	Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0,1 % STOT SE 3; H335: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 %	Acute Tox. 4, H332; Skin Irrit.2, H315; Resp. Sens.1, H334; Skin Sens. 1, H317 Eye Irrit.2, H319; Carc. 2, H351; STOT SE 3, H335; STOT RE 2, H373;

(*) Phrases in full text see section 16

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information: In case of doubt, or when symptoms persist, seek medical attention. Never give an unconscious person anything to eat or drink. Bring the SDS at doctor visits.

Inhalation: Fresh air. Rest. If necessary respiratory assistance / artificial respiration. If symptoms occur - consult a doctor.

Eye contact: Remove contact lenses, rinse with plenty of water for 5 minutes, holding the eyelids apart and seek medical attention if symptoms occur.

Skin contact: Take off contaminated clothing. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do **not** use organic solvents.

Ingestion: Rinse mouth. Drink milk or water. DO NOT induce vomiting. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

This product may cause sensitization by skin contact. Can cause severe allergic reaction in sensitized individuals.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Alcohol resistant foam, carbon dioxide, dry powder or water spray / fog.

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Unsuitable extinguishing media: Direct water jet / high pressure.

5.2 Special hazards arising from the substance or mixture

General recommendations: Fire may produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required.

5.3 Advice for firefighters

Cool closed containers exposed to fire with water. Do not allow run off from fire fighting to enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid skin contact with the product, avoid breathing vapours.

6.2 Environmental precautions

Contain spillage with non-combustible material such as sand, earth, vermiculite or diatomaceous earth. Prevent release to drains or watercourses. If the product contaminates lakes, rivers or sewage, inform appropriate authorities. Dispose of as chemical waste (hazardous waste).

6.3 Methods and material for containment and cleaning up

Shovel into suitable container for disposal according to local regulations (see section 13). Clean preferably with a detergent, avoid use of solvents.

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Persons with preexisting skin allergy may not be exposed to or work with this product.

The use requires effective ventilation. Avoid contact with eyes and skin. Avoid inhalation of dust, particulates and spray mist arising from the application of this product. Avoid inhalation of dust from sanding.

Personal protective equipment, see Section 8. When handling it is forbidden to smoke, eat and drink. Make sure the appropriate safety and health rules are observed.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool dry place in tightly closed containers. The product is not classified as flammable.

Observe label. Keep away from oxidising agents, strong alkalis, strong acids.

Opened containers must be carefully resealed and kept upright to prevent leakage. Store only in original container.

7.3 Specific end use(s):

Polyurethane intended for industrial flooring.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Subjects to monitor	CAS-nr	Basis	Type	Value	Ceiling limit value	Remarks
4,4'-Diphenylmethane diisocyanate	101-68-8	TRGS 900	STEL CL			Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages. Listed
4,4'-Diphenylmethane diisocyanate	101-68-8	TRGS 900				Listed
4,4'-Diphenylmethane diisocyanate	101-68-8	TRGS 900		0,05 mg/m ³	=2=	Y
4,4'-Diphenylmethane diisocyanate	101-68-8	TRGS 900	STEL FAC		1	Substance listed with both Peak factor and STEL factor. The Peak factor is supplied with the AGW values. Dermal absorption possible
4,4'-Diphenylmethane diisocyanate	101-68-8	TRGS 900				Listed
2,4'-Diphenylmethane diisocyanate	5873-54-1	TRGS 900				Listed
2,4'-Diphenylmethane diisocyanate	5873-54-1	TRGS 900		0,05 mg/m ³	=2=	
2,4'-Diphenylmethane diisocyanate	5873-54-1	TRGS 900	STEL FAC		1	Substance listed with

diisocyanate

2,4'-Diphenylmethane diisocyanate 5873-54-1 TRGS 900 STEL CL

both Peak factor and STEL factor. The Peak factor is supplied with the AGW values.
 Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.

8.2 Exposure controls

Technical measures

Use only in well-ventilated areas.

Personal protective equipment

Respiratory protection:

In situations where spray mist occurs, use appropriate certified respirators.

Hand protection:

Polyethylene or polypropylene with inner glove of fabric needed. PVC or latex gloves not recommended. Barrier creams may help to protect the skin, they should however not be applied after exposure has occurred.

Eye/face protection:

In case of splash hazard wear tight-fitting goggles or face shield.

Skin protection:

Wear protective clothing made of natural fibres.

9. PHYSICAL AND CHEMICAL PROPERTIES:

9.1 Information on basic physical and chemical properties

Appearance:	Colorless liquid with a slight characteristic odour
Flash point:	> 200°C
Melting point:	N/A
Viscosity 20°C:	Ca 200 mPa s
Kinematic viscosity 20°C:	Ca 160 mm ² /s
Density:	ca 1,2 g/cm ³
Vapour pressure:	< 0,01 Pa (25°C)
PH value 20°C, DM 100%	Weakly Neutral

9.2 Other information

Solubility in water:	Insoluble
Solubility in organic solvents:	Soluble in aromatics, ketones, esters, etc.

10. STABILITY AND REACTIVITY

10.1 Reactivity

N/A

10.2 Chemical stability

Polymerises at about 200°C with evolution of CO₂

10.3 Possibility of hazardous reactions

Reacts with water and alcohols to form CO₂.

10.4 Conditions to avoid

Avoid release to the environment.

10.5 Incompatible materials

No specific data.

10.6 Hazardous decomposition products

No hazardous decomposition products when stored and handled correctly.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

There are no data available on the product itself. The preparation has been assessed and classified by the included substances classification in accordance with applicable regulations.

Acute oral toxicity:	LD50 Rat: > 10 000 mg/kg (Difenylmetandiisocyanat, MDI).
	LD50 Rat: > 2.000 mg/kg (Diphenylmethane-2,4'-diisocyanate).
	LD50 Rat: > 2.000 mg/kg (Diphenylmethane-4,4'-diisocyanate).

Acute dermal toxicity:	LD50 Rabbit: > 9 400 mg/kg (Difenylmetandiisocyanat, MDI).
	LD50 Rabbit: > 9 400 mg/kg (Diphenylmethane-2,4'-diisocyanate).

LD50 Rabbit: > 9 400 mg/kg (Diphenylmethane-4,4'-diisocyanate).

Acute inhalation toxicity: LC50 Rat: 0,31 mg/l, 4 h (Difenylmetandiisocyanat, MDI)
 LC50 Rat: 0,387 mg/l, 4 h (Diphenylmethane-2,4'-diisocyanate)
 LC50 Rat: 0,368 mg/l, 4 h (Diphenylmethane-4,4'-diisocyanate)

Saturated vapor concentration (MDI) is at 25 °C: 0.09 mg / m³ (limit 0.05 mg / m³).

Based on the properties of the epoxy constituents and considering toxicological data on similar preparations, this preparation may be sensitizing and irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and to sensitization, possibly with cross-sensitization to other epoxies.

Users should avoid exposing themselves to the skin, spray mist and fumes from the preparation.

11.2 Information on other hazards

No data.

11.2.1 Endocrine disrupting properties

No data.

12. ECOLOGICAL INFORMATION

The preparation has been assessed according to current European legislation and is classified based on the classification of included substances. See paragraph 2, 15, 16.

12.1 Toxicity

There is no data available on the product itself.

The product must not be discharged into the drains or watercourses.

Aquatic toxicity:		(Difenylmetandiisocyanat, MDI):	
Acute toxicity:	LC50 / 96h:	Danio rerio:	>1 000 mg/l.
	EC50 / 24h:	Daphnia magna:	>1 000 mg/l
		(Diphenylmethane-2,4'-diisocyanate):	
	LC50 / 96h:	Danio rerio:	>1 000 mg/l.
	EC50 / 24h:	Daphnia magna:	>1 000 mg/l
		(Diphenylmethane-4,4'-diisocyanate):	
	LC50 / 96h:	Danio rerio:	>1 000 mg/l.
	EC50 / 24h:	Daphnia magna:	>1 000 mg/l

12.2 Persistence and degradability

The product is not easily biodegradable.

12.3 Bioaccumulative potential

High potential for bioaccumulation.

12.4 Mobility in soil

N/A.

12.5 Results of PBT and vPvB assessment

Not considered to be a substance meeting the criteria in Annex XIII for PBT/vPvB.

12.6 Endocrine disrupting properties

No known harmful effects.

12.7 Other harmful effects

An environmental hazard cannot be ruled out in the event of unprofessional handling or disposal. Toxic to aquatic organisms with long-term effects.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Prevent entry into sewers and waterways.

Dispose of according to local regulations. Proper disposal is incineration.

Liquid waste is classified as hazardous waste with EWC-code (European Waste Catalogue): 08 01 11.

14. TRANSPORT INFORMATION

ADR, RID

14.1 UN-number: -

14.2 UN proper shipping name: -

14.3 Transport hazard class(es): -
 14.4 Packing group: -

IMDG

14.1 UN-number: -
 14.2 UN proper shipping name: -
 14.3 Transport hazard class(es): -
 14.4 Packing group: -
 14.5 Environmental hazards: -

14.6 Special precautions for user: Not applicable
 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

15. REGULATORY INFORMATION

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

Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC

EG 1907/2006	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
EG 1272/2008	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures
EG 42/2004	European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes.
SFS 1998:808	The Environmental Code, in accordance with the amendment to the Act according to SFS 2018: 1862.
SFS 2018:2003	Waste Ordinance.
AFS 2018:01	Occupational exposure limits and measures against air pollution.
AFS 2018:02	Chemical work environment risks.
MSBFS 2018:05	Regulations on the transport of dangerous goods by road and terrain. (ADR)
TSFS 2015:66	Transport Agency's regulations on transport by sea of packaged dangerous goods. (IMDG)
(EU)2020/1149	Commission Regulation amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards diisocyanates
(EU) 2020/878	On amendment of Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on registration, evaluation, approval and restriction of chemicals (Reach).
VOC:	Eradur PU 84 B, 0,0%

15.2 Chemical safety assessment

No chemical safety assessment is required.

16. OTHER INFORMATION

Full text of H-phrases referred to under sections 2:

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.
EUH204	Contains isocyanates. May produce an allergic reaction.

This safety data sheet is prepared in accordance with the existing European regulations.

Reason for update:

Update of chapter 2.2 with EUH-phrase regarding: Commission Regulation (EU) 2020/1149 of 3 August 2020 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards diisocyanates

This SDS is based on Eradur AB's current knowledge and experience, and to serve as a guide for safe handling of the product. This SDS should be used along with other product technical information. The user is made aware of the risks that may occur if the product is used for purposes other than its intended purpose.

It is the sole responsibility to take all precautions required in handling the product. The information provided herein is not exhaustive and does not exonerate the user from ensuring that legal obligations exist, and for which he alone is responsible.