

*

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Creation date version 1** 22.12.2005
- **Trade name** NEUKADUR Hardener Flexible Compound N 1
- **Article number:** P1004
- **Utilization of the substance of the formulation:**
Hardener for polyols for the production of polyurethanes
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
For use in the do-it-yourself section is a further information available, see "Fact Sheet for resellers".
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Suter Kunststoffe AG
Aefligenstrasse 3
3312 Fraubrunnen
Tel. +41 (0)31 763 60 60
Fax. +41 (0)31 763 60 61
e-mail: info@swiss-composite.ch
- **Further information obtainable from:** Sales Team
- **1.4 Emergency telephone number:**
Tox Info Suisse phone : 145
International: +41 (0)44 251 51 51

*

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



health hazard

- Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Carc. 2 H351 Suspected of causing cancer.
- STOT RE 2 H373 May cause damage to the lung and the respiratory system through prolonged or repeated exposure.



- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye irritation.
- Skin Sens. 1 H317 May cause an allergic skin reaction.
- STOT SE 3 H335 May cause respiratory irritation.
- Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

(Contd. on page 2)

GB

Trade name NEUKADUR Hardener Flexible Compound N 1

(Contd. of page 1)

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



GHS07 GHS08

- **Signal word Danger**
- **Hazard-determining components of labelling:**
diphenylmethanediisocyanate, isomers and homologues
- **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to the lung and the respiratory system through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284 [In case of inadequate ventilation] wear respiratory protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:**
EUH204 Contains isocyanates. May produce an allergic reaction.
As from 24 August 2023 adequate training is required before industrial or professional use.
- **2.3 Other hazards**
The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

* **SECTION 3: Composition/information on ingredients**

- **3.1 Substances**
- **Identification number(s)** 615-005-00-9
- **3.2 Mixtures**
- **Description:** Mixture: consisting of the following components.

(Contd. on page 3)

Trade name NEUKADUR Hardener Flexible Compound N 1

(Contd. of page 2)

· **Dangerous components:**

CAS: 27138-31-4 EINECS: 248-258-5 Reg.nr.: 01-2119529241-49-xxxx	oxydipropyl dibenzoate Aquatic Chronic 3, H412	50-75%
CAS: 9016-87-9 NLP: 500-079-6	diphenylmethanediisocyanate, isomeres and homologues Consisting of: 101-68-8 diphenylmethane-4,4'-diisocyanate ($\geq 25 - < 50\%$); 5873-54-1 diphenylmethane-2,4'-diisocyanate ($< 5\%$); 2536-05-2 diphenylmethane-2,2'-diisocyanate ($< 2.5\%$) ⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Eye Irrit. 2; H319: $C \geq 5\%$ Skin Irrit. 2; H315: $C \geq 5\%$ Resp. Sens. 1; H334: $C \geq 0.1\%$ STOT SE 3; H335: $C \geq 5\%$	25-50%

SECTION 4: First aid measures· **4.1 Description of first aid measures**· **General information:**

Involve doctor immediately.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air; consult doctor in case of complaints.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

In contact with the skin preferably with cleaners based

Polyethylene wash or clean with plenty of hot water and soap. In reactions of

Skin doctor immediately.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

Protect unharmed eye.

· **After swallowing:**

Do not induce vomiting; call for medical help immediately.

A person vomiting while laying on their back should be turned onto their side.

If swallowed, rinse mouth with water (only if the person is conscious).

Call a doctor immediately.

· **4.2 Most important symptoms and effects, both acute and delayed**

The product is irritating to the respiratory tract and may trigger skin and

Respiratory sensitization. Treatment of acute irritation or bronchial

is primarily symptomatic. Depending on the degree of exposure and the

Complaints may be necessary long-term medical care.

(Contd. on page 4)

GB

Trade name **NEUKADUR Hardener Flexible Compound N 1**

(Contd. of page 3)

- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** *Water with full jet*
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, formation of carbon monoxide, nitrogen oxide, isocyanate vapour, and traces of hydrogen cyanide is possible. Fireman have to wear self-contained breathing apparatus. Do not let enter contaminated extinguishing water into the soil, groundwater or surface waters.
- **5.3 Advice for firefighters**
· **Protective equipment:** *Wear self-contained respiratory protective device.*

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.*
- **6.3 Methods and material for containment and cleaning up:**
Remove mechanically; remainder with wet, absorbent material (eg sawdust, chemical binder based on Calcium silicate hydrate, sand). After approx 1 hour transfer to waste container and do not seal (evolution of CO₂).
Keep damp in a safe ventilated area for several days.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Prevent formation of aerosols.
Ensure good ventilation / exhaustion at the workplace.
Use and open container with care.
*At workplaces or system parts where isocyanate aerosols and / or vapors in higher concentrations can arise (e.g. pressure relief, mold ventilation, Blowing through mixing heads with compressed air), the occupational hygiene limit values are prevented. The air movement must be carried out by the people
be done away. The effectiveness of the systems must be checked at regular intervals.*
Air limit values mentioned in Chapter 8 must be monitored.
The personal protective measures described in Chapter 8 must be observed. Contact with the skin and eyes as well as the inhalation of the vapors absolutely avoid.
Keep away from food and luxury items. Hands before breaks and at the end of work

(Contd. on page 5)

Trade name NEUKADUR Hardener Flexible Compound N 1

(Contd. of page 4)

- wash and apply protective skin ointment. Store work clothes separately. Soiled, Take off soaked clothing immediately.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
 - **7.2 Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
Keep container tightly closed and dry and storage in a good ventilated room.
 - Storage temperature: 20 - 25 °C.
 - **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from water.
 - **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.
Protect from humidity and water.
 - **Storage class: 10**
 - **7.3 Denomination of Origin** Made in Germany
 - **Processing information** Homogenize content before use
 - **General remark** For processing instructions see data sheet

SECTION 8: Exposure controls/personal protection· **8.1 Control parameters**· **Ingredients with limit values that require monitoring at the workplace:****9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**

WEL (Great Britain)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
AGW (Germany)	Long-term value: 0.05 E mg/m ³ I;=2=(I);DFG, H, Sah, Y, 12

· **DNELs****27138-31-4 oxydipropyl dibenzoate**

Oral	DNEL Acute systemic effects - short term	80 mg/kg bw/day (General population)
	DNEL systemic effects - long term exposure	5 mg/kg bw/d (General population)
Dermal	DNEL Acute systemic effects - short term	80 mg/kg bw/day (General population) 170 mg/kg bw/day (workers)
	DNEL systemic effects - long term exposure	0.22 mg/kg bw/d (General population) 10 mg/kg bw/d (workers)
Inhalative	DNEL Acute systemic effects - short term	8.7 mg/m ³ (General population) 35.08 mg/m ³ (workers)
	DNEL systemic effects - long term exposure	8.69 mg/m ³ (General population) 8.8 mg/m ³ (workers)

(Contd. on page 6)

Trade name NEUKADUR Hardener Flexible Compound N 1

(Contd. of page 5)

· PNECs	
27138-31-4 oxydipropyl dibenzoate	
PNEC	1.49 mg/kg (freshwater- sediment) 0.149 mg/kg (seawater - sediment)
	1 mg/kg (soil (Boden))
PNEC STP	10 mg/L (sewage plant)
PNEC	0.0037 mg/l (freshwater) 0.00037 mg/l (marine water) 0.037 mg/l (intermittent releases)

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

An inadequately ventilated places and during spraying respirator

required. We recommend using a self-contained breathing apparatus.

· **Hand protection**



Protective gloves

Preventive skin protection (3-point program) required

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

· **Body protection:** Protective work clothing

GB

(Contd. on page 7)

Trade name NEUKADUR Hardener Flexible Compound N 1

(Contd. of page 6)

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information**

· Colour:	Brown
· Odour:	Characteristic
· Melting point/freezing point:	41 °C
· Boiling point or initial boiling point and boiling range	300 °C
· Flash point:	250 °C
· Auto-ignition temperature:	400 °C
· Viscosity:	
· Dynamic at 20 °C:	ca. 100 mPas
· Solubility	
· water:	reacts with water forming CO ₂ , risk of bursting
· Vapour pressure at 25 °C:	0.0002 hPa
· Density and/or relative density	
· Density at 20 °C:	ca. 1.15 g/cm ³

9.2 Other information

· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Organic solvents:	0.0 %
· VOC (EC)	0.0 g/l

Information with regard to physical hazard classes

· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

GB

(Contd. on page 8)

Trade name NEUKADUR Hardener Flexible Compound N 1

(Contd. of page 7)

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** > 200 °C polymerisation, CO₂ separation.
- **10.3 Possibility of hazardous reactions**
Exothermic reaction with amines and alcohols; reacts with water forming CO₂, in closed containers risk of bursting owing to increase of pressure.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Incompatible with oxidizing agents, acids
- **10.6 Hazardous decomposition products:** At the air > 300 °C: acrolein

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

27138-31-4 oxydipropyl dibenzoate

Oral	LD50	3,914 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rat)
Inhalative	LC50/4 h	200 mg/l (rat)

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Oral	LD50	>10,000 mg/kg (rat) (OECD 401 Acute Oral Toxicity)
Dermal	LD50	>9,400 mg/kg (rabbit) (OECD 402 Acute Dermal Toxicity)

- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity**
Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause respiratory irritation.
- **STOT-repeated exposure**
May cause damage to the lung and the respiratory system through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

GB

(Contd. on page 9)

Trade name NEUKADUR Hardener Flexible Compound N 1

(Contd. of page 8)

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:****27138-31-4 oxydipropyl dibenzoate**

LC50 (96 h) 3.7 mg/l (F)

LL50 (48h) 19.3 mg/L (D)

LL50(96h) 4.9 mg/l (Algae)

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

LC50 (96 h) >1,000 mg/l (Danio Rerio) (OECD 203 Fish, Acute Toxicity Test)

EC50 (24h) >1,000 mg/l (Daphnia Magna) (OECD 202)

EC50(3h) >100 mg/l (activated sludge) (OECD209 Activated Sludge, Respiration Inhibition Test)

NOEC / 21d >10 mg/l (Daphnia Magna) (OECD 202 Daphnia sp. Acute Immobilisation Test)

NOEC / 14d >1,000 mg/kg (Eisenia fetida (Regenwurm)) (OECD 207 Earthworm, Acute Toxicity Tests)

>1,000 mg/kg (Avena sativa (Hafer)) (OECD 208 Terrestrial Plant Test)

>1,000 mg/kg (Lactuca Sativa (Kopfsalat)) (OECD 208 Terrestrial Plant Test)

ErC50/72h >1,640 mg/l (Scenedesmus subspicatus) (OECD 201 Alga, Growth Inhibition Test)

· **12.2 Persistence and degradability** No further relevant information available.· **12.3 Bioaccumulative potential** No further relevant information available.· **12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects**Additional ecological information:****General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Recommendation**

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate waste code according to the European Waste Catalogue (EWC) should be used.

No disposal via the sewage

Waste disposal key:

VeVA:

08 05 01 * isocyanate waste

(Contd. on page 10)

Trade name NEUKADUR Hardener Flexible Compound N 1

(Contd. of page 9)

· **Uncleaned packaging:**· **Recommendation:**

Disposal must be made according to official regulations.

Cleaned containers may after emptying (pouring, scraping, dripping) are sent to an appropriate collection points on the existing take-back scheme of the chemical industry for use. Containers must be recycled in accordance with national legislation and environmental regulations.

SECTION 14: Transport information· **14.1 UN number or ID number**

· ADR, IMDG, IATA Void

· **14.2 UN proper shipping name**

· ADR, IMDG, IATA Void

· **14.3 Transport hazard class(es)**

· ADR, ADN, IMDG, IATA

· Class Void

· **14.4 Packing group**

· ADR, IMDG, IATA Void

· **14.5 Environmental hazards:**

Not applicable.

· **14.6 Special precautions for user**

Not applicable.

· **14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

· **UN "Model Regulation":**

Void

SECTION 15: Regulatory information· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms**

GHS07 GHS08

· **Signal word Danger**· **Hazard-determining components of labelling:**

diphenylmethanediisocyanate, isomeres and homologues

· **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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

(Contd. on page 11)

Trade name NEUKADUR Hardener Flexible Compound N 1

(Contd. of page 10)

*H317 May cause an allergic skin reaction.**H351 Suspected of causing cancer.**H335 May cause respiratory irritation.**H373 May cause damage to the lung and the respiratory system through prolonged or repeated exposure.**H412 Harmful to aquatic life with long lasting effects.***· Precautionary statements***P260 Do not breathe dust/fume/gas/mist/vapours/spray.**P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.**P284 [In case of inadequate ventilation] wear respiratory protection.**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***· Directive 2012/18/EU****· Named dangerous substances - ANNEX I** None of the ingredients is listed.**· National regulations:****· Technical instructions (air):**

Class	Share in %
I	25-50

· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.**· 15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant 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.**H412 Harmful to aquatic life with long lasting effects.**EUH204 Contains isocyanates. May produce an allergic reaction.***· Recommended restriction of use**

The information in this safety data sheet corresponds to the best of our knowledge at the time of the revision. The information should give you clues for the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal. The details are not transferable to other products. Insofar as the product mentioned in this safety data sheet is mixed with other materials, mixed or processed, or subjected to processing, the information in this safety data sheet, unless expressly stated otherwise, can not be transferred to the new material produced in this way.

(Contd. on page 12)

Trade name NEUKADUR Hardener Flexible Compound N 1

(Contd. of page 11)

UFI code is valid in:

Germany

Austria

· **Department issuing SDS:** environment protection department

· **Contact:** Herr Ottensmann Tel. +49 (0)2056-25863-7

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**