

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001
Print date: 24.08.2021
Version: 28

Stelpant-PU-Zinc grey
Revision date: 28.07.2021
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EN
Page 1 / 14

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

1.1. Product identifier

Article No. (manufacturer/supplier) B100.0001
Trade name/designation Stelpant-PU-Zinc grey
UFI: 0300-P0FF-P009-GGWW

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

Relevant identified uses

Primer for steel constructions

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

Steelpaint GmbH
Am Dreistock 9 Telephone: +49 9321 37040
D- 97318 Kitzingen Telefax: +49 9321 370440

Department responsible for information:

Labor
E-mail mail@steelpaint.com

1.4. Emergency telephone number

Emergency telephone number
Giftnotruf Mainz - 24 Stunden Notddienst - Tel. +49 (0) 6131/19240
Poison Control Center Mainz - 24 hour emergency service - phone +49 (0) 6131/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Resp. Sens. 1 / H334	Respiratory or skin sensitisation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Carc. 2 / H351	Carcinogenicity	Suspected of causing cancer.
Aquatic Acute 1 / H400	Hazardous to the aquatic environment	Very toxic to aquatic organisms.
Aquatic Chronic 1 / H410	Hazardous to the aquatic environment	Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Danger

Hazard statements

H226	Flammable liquid and vapour.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye/face protection.
P284	In case of inadequate ventilation wear respiratory protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P370 + P378	In case of fire: Use extinguishing powder or sand to extinguish.
P391	Collect spillage.
P403 + P235	Store in a well-ventilated place. Keep cool.

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001 Stelpant-PU-Zinc grey
 Print date: 24.08.2021 Revision date: 28.07.2021
 Version: 28 Issue date: 28.07.2021

EN
 Page 2 / 14

Hazard components for labelling

aromatics polyisocyanate prepolymer
 Diphenylmethandiisocyanate, isomeres and homologous
 4,4'-methylenediphenyl diisocyanate
 2,2'-methylenediphenyl diisocyanate
 Diphenylmethan-2,4-diisocyanate
 Diphenylmethan-4,4-diisocyanate
 aromatic polyisocyanate

Supplemental hazard information

EUH204 Contains isocyanates. May produce an allergic reaction.

2.3. Other hazards

No information available.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description paint, based on aromatic Polyisocyanate

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. Index No.	REACH No. Designation classification: // Remark	weight-%
231-175-3 7440-66-6 030-001-01-9	01-2119467174-37-XXXX zinc powder - zinc dust (stabilised) Aquatic Acute 1 H400 / Aquatic Chronic 1 H410	50 - 100
67815-87-6	aromatics polyisocyanate prepolymer Resp. Sens. 1 H334 / Skin Sens. 1 H317 / Aquatic Chronic 3 H412	2,5 - 5
215-535-7 1330-20-7 601-022-00-9	01-2119488216-32-XXXX Xylene Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / STOT SE 3 H335 / STOT RE 2 H373 / Asp. Tox. 1 H304 / Flam. Liq. 3 H226	2,5 - 5
215-222-5 1314-13-2 030-013-00-7	01-2119463881-32-XXXX zinc oxide Aquatic Acute 1 H400 / Aquatic Chronic 1 H410	2,5 - 5
9016-87-9	Diphenylmethandiisocyanate, isomeres and homologous Acute Tox. 4 H332 / Eye Irrit. 2 H319 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Carc. 2 H351 / Resp. Sens. 1 H334 / Skin Sens. 1 H317 / Acute Tox. 4 H332	1 - 2,5
265-199-0 64742-95-6 649-356-00-4	01-2119455851-35-XXXX Hydrocarbons, C9, aromatics Flam. Liq. 3 H226 / STOT SE 3 H335 / Aquatic Chronic 2 H411 / Asp. Tox. 1 H304 / STOT SE 3 H336	1 - 2,5
204-658-1 123-86-4 607-025-00-1	01-2119485493-29-XXXX n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336	1 - 2,5
202-966-0 101-68-8 615-005-00-9	01-2119457014-47-XXXX Diphenylmethan-4,4-diisocyanate Acute Tox. 4 H332 / Eye Irrit. 2 H319 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Carc. 2 H351 / Resp. Sens. 1 H334 / Skin Sens. 1 H317 / Acute Tox. 4 H332	1 - 2,5
147993-65-5	01-2119884131-42-XXXX aromatic polyisocyanate Acute Tox. 4 H332 / STOT RE 2 H373 / Resp. Sens. 1 H334 / Skin Sens. 1 H317 / Carc. 2 H351 / STOT SE 3 H335 / Aquatic Chronic 2 H411	1 - 2,5

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001 Stelpant-PU-Zinc grey
 Print date: 24.08.2021 Revision date: 28.07.2021
 Version: 28 Issue date: 28.07.2021
 EN
 Page 3 / 14

227-534-9	01-2119480143-45-XXXX	
5873-54-1	Diphenylmethan-2,4-diisocyanate	0,5 - 1
615-005-00-9	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	
	Specific concentration limit (SCL): Eye Irrit. 2 H319 \geq 5 / Skin Irrit. 2 H315 \geq 5 / Resp. Sens. 1 H334 \geq 0,1 / STOT SE 3 H335 \geq 5	
202-966-0	01-2119457014-47-XXXX	
101-68-8	4,4'-methylenediphenyl diisocyanate	< 0,5
615-005-00-9	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	
	Specific concentration limit (SCL): Eye Irrit. 2 H319 \geq 5 / Skin Irrit. 2 H315 \geq 5 / Resp. Sens. 1 H334 \geq 0,1 / STOT SE 3 H335 \geq 5	
219-799-4	01-2119927323-43-XXXX	
2536-05-2	2,2'-methylenediphenyl diisocyanate	< 0,5
615-005-00-9	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	
	Specific concentration limit (SCL): Eye Irrit. 2 H319 \geq 5 / Skin Irrit. 2 H315 \geq 5 / Resp. Sens. 1 H334 \geq 0,1 / STOT SE 3 H335 \geq 5	

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

In all cases of doubt, or when symptoms persist, seek medical advice.

4.3. Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do

Article No.: B100.0001
Print date: 24.08.2021
Version: 28

Stelpant-PU-Zinc grey
Revision date: 28.07.2021
Issue date: 28.07.2021

EN
Page 4 / 14

not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Use appropriate container to avoid environmental contamination. Fouled surfaces must be immediately cleaned with suitable solvents, Useable as such (flammable): water 45 vol.% ethanol or i-propanol 50 vol. % ammonia solution (density= 0.88) 5 vol.%

Alternative (non-flammable): sodium carbonate 5 vol.% water 95 vol.%.

Take up spilled residuals with the same agent and leave them for a few days in unclosed containers until there is no further reaction. Then, close the containers and dispose of them in accordance with the regulations for waste removal (refer to section 13).

6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this mixture.

People who spray this preparation should have regular pulmonary function tests.

7.1. Precautions for safe handling

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Be careful when opening used containers (excess pressure). Precautionary measures should be taken in order to reduce strain from humidity or water: CO₂ is formed which may produce excess pressure in closed containers. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Further information

Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers. Keep away from amines, alcohols and water.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this mixture.

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001 Stelpant-PU-Zinc grey
Print date: 24.08.2021 Revision date: 28.07.2021
Version: 28 Issue date: 28.07.2021

EN
Page 5 / 14

People who spray this preparation should have regular pulmonary function tests.

8.1. Control parameters

Occupational exposure limit values:

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

WEL, TWA: 220 mg/m³; 50 ppm

WEL, STEL: 441 mg/m³; 100 ppm

Remark: (may be absorbed through the skin)

BMGV, TWA: 650 mmol/mol creatinine

Remark: methyl hippuric acid; urine; end of exposure or end of shift

Hydrocarbons, C9, aromatics

Index No. 649-356-00-4 / EC No. 265-199-0 / CAS No. 64742-95-6

WEL, TWA: 500 mg/m³

Remark: (Aromatics)

n-butyl acetate

Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

MEL/OES, TWA: 724 mg/m³; 150 ppm

MEL/OES, STEL: 966 mg/m³; 200 ppm

Additional information

TWA : Long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

DNEL:

aromatic polyisocyanate

CAS No. 147993-65-5

DNEL acute dermal, short-term (systemic), Workers: 50 mg/kg bw/day

DNEL acute inhalative (local), Workers: 0,1 mg/m³

DNEL acute inhalative (systemic), Workers: 0,1 mg/m³

DNEL long-term inhalative (local), Workers: 0,05 mg/m³

DNEL long-term inhalative (systemic), Workers: 0,05 mg/m³

n-butyl acetate

Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

DNEL acute inhalative (local), Workers: 600 mg/m³

DNEL acute inhalative (systemic), Workers: 600 mg/m³

DNEL long-term inhalative (local), Workers: 300 mg/m³

DNEL long-term inhalative (systemic), Workers: 300 mg/m³

DNEL acute inhalative (local), Consumer: 859,7 mg/m³

DNEL acute inhalative (systemic), Consumer: 859,7 mg/m³

DNEL long-term inhalative (local), Consumer: 102,34 mg/m³

DNEL long-term inhalative (systemic), Consumer: 102,34 mg/m³

Hydrocarbons, C9, aromatics

Index No. 649-356-00-4 / EC No. 265-199-0 / CAS No. 64742-95-6

DNEL long-term dermal (systemic), Workers: 25 mg/kg bw/day

DNEL long-term inhalative (systemic), Workers: 150 mg/m³

DNEL long-term dermal (systemic), Consumer: 11 mg/kg bw/day

DNEL long-term inhalative (systemic), Consumer: 32 mg/m³

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

DNEL long-term dermal (systemic), Workers: 180 mg/kg bw/day

DNEL acute inhalative (systemic), Workers: 289 mg/m³

DNEL long-term inhalative (systemic), Workers: 77 mg/m³

DNEL long-term dermal (systemic), Consumer: 108 mg/kg bw/day

DNEL acute inhalative (systemic), Consumer: 174 mg/m³

DNEL long-term inhalative (systemic), Consumer: 14,8 mg/m³

zinc powder - zinc dust (stabilised)

Index No. 030-001-01-9 / EC No. 231-175-3 / CAS No. 7440-66-6

DNEL long-term oral (repeated), Workers: 50 mg/kg bw/day

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001 Stelpant-PU-Zinc grey
Print date: 24.08.2021 Revision date: 28.07.2021
Version: 28 Issue date: 28.07.2021

EN
Page 6 / 14

DNEL long-term dermal (systemic), Workers: 5000 mg/kg bw/day
DNEL acute inhalative (systemic), Workers: 5 mg/m³
DNEL long-term dermal (systemic), Consumer: 5000 mg/kg bw/day
DNEL long-term inhalative (systemic), Consumer: 2,5 mg/m³

4,4'-methylenediphenyl diisocyanate

Index No. 615-005-00-9 / EC No. 202-966-0 / CAS No. 101-68-8

DNEL acute inhalative (local), Workers: 0,1 mg/m³
DNEL long-term inhalative (local), Workers: 0,05 mg/m³
DNEL acute inhalative (local), Consumer: 0,05 mg/m³
DNEL long-term inhalative (systemic), Consumer: 0,025 mg/m³

zinc oxide

Index No. 030-013-00-7 / EC No. 215-222-5 / CAS No. 1314-13-2

DNEL long-term oral (repeated), Workers: 62,2 mg/kg bw/day
Source: OECD 102
DNEL long-term dermal (systemic), Workers: 83 mg/kg bw/day
Source: OECD 102
DNEL long-term inhalative (systemic), Workers: 5 mg/m³
Source: OECD 102
DNEL long-term oral (repeated), Consumer: 0,83 mg/kg bw/day
Source: OECD 102
DNEL long-term dermal (systemic), Consumer: 83 mg/kg bw/day
Source: OECD 102
DNEL long-term inhalative (systemic), Consumer: 2,5 mg/m³
Source: OECD 102

2,2'-methylenediphenyl diisocyanate

Index No. 615-005-00-9 / EC No. 219-799-4 / CAS No. 2536-05-2

DNEL acute inhalative (local), Workers: 0,1 mg/m³
DNEL long-term inhalative (local), Workers: 0,05 mg/m³
DNEL acute inhalative (local), Consumer: 0,05 mg/m³
DNEL long-term inhalative (local), Consumer: 0,025 mg/m³

Diphenylmethan-2,4-diisocyanate

Index No. 615-005-00-9 / EC No. 227-534-9 / CAS No. 5873-54-1

DNEL acute dermal, short-term (systemic), Workers:
DNEL acute inhalative (local), Workers: 0,1 mg/m³
DNEL acute inhalative (systemic), Workers:
DNEL long-term inhalative (local), Workers: 0,05 mg/m³
DNEL acute inhalative (local), Consumer: 0,05 mg/m³
DNEL acute inhalative (systemic), Consumer:
DNEL long-term inhalative (local), Consumer: 0,025 mg/m³

Diphenylmethan-4,4-diisocyanate

Index No. 615-005-00-9 / EC No. 202-966-0 / CAS No. 101-68-8

DNEL acute dermal, short-term (systemic), Workers: 50 mg/kg bw/day
DNEL acute inhalative (local), Workers: 0,1 mg/m³
DNEL acute inhalative (systemic), Workers: 0,1 mg/m³
DNEL long-term inhalative (local), Workers: 0,05 mg/m³
DNEL long-term inhalative (systemic), Workers: 0,05 mg/m³
DNEL acute dermal, short-term (local), Consumer:
DNEL acute dermal, short-term (systemic), Consumer: 25 mg/kg bw/day
DNEL acute inhalative (local), Consumer: 0,05 mg/m³
DNEL acute inhalative (systemic), Consumer: 0,05 mg/m³
DNEL long-term inhalative (local), Consumer: 0,025 mg/m³
DNEL long-term inhalative (systemic), Consumer: 0,025 mg/m³

PNEC:

aromatic polyisocyanate

CAS No. 147993-65-5

PNEC aquatic, freshwater: 0,002 mg/L
PNEC aquatic, marine water: 0,0002 mg/L
PNEC, soil: 67 mg/kg
PNEC sewage treatment plant (STP): 100 mg/L

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001 Stelpant-PU-Zinc grey
Print date: 24.08.2021 Revision date: 28.07.2021
Version: 28 Issue date: 28.07.2021

EN
Page 7 / 14

n-butyl acetate

Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

PNEC aquatic, freshwater: 0,18 mg/L

PNEC aquatic, marine water: 0,018 mg/L

PNEC sediment, freshwater: 0,981 mg/L

PNEC sediment, marine water: 0,0981 mg/L

PNEC, soil: 0,0903 mg/L

PNEC sewage treatment plant (STP): 35,6 mg/L

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

PNEC aquatic, freshwater: 0,327 mg/L

PNEC aquatic, marine water: 0,327 mg/L

PNEC sediment, freshwater: 12,46 mg/kg

PNEC sediment, marine water: 12,46 mg/kg

PNEC, soil: 2,31 mg/kg

PNEC sewage treatment plant (STP): 6,58 mg/L

zinc powder - zinc dust (stabilised)

Index No. 030-001-01-9 / EC No. 231-175-3 / CAS No. 7440-66-6

PNEC aquatic, freshwater: 20,6 µg/L

PNEC aquatic, marine water: 6,1 µg/L

PNEC sediment, freshwater: 118 mg/kg bw/day

PNEC sediment, marine water: 56,5 mg/kg bw/day

PNEC, soil: 35,6 mg/kg bw/day

PNEC sewage treatment plant (STP): 52 µg/L

4,4'-methylenediphenyl diisocyanate

Index No. 615-005-00-9 / EC No. 202-966-0 / CAS No. 101-68-8

PNEC aquatic, freshwater: 1 mg/L

PNEC aquatic, marine water: 0,1 mg/L

PNEC, soil: 1 mg/kg

PNEC sewage treatment plant (STP): 1 mg/L

zinc oxide

Index No. 030-013-00-7 / EC No. 215-222-5 / CAS No. 1314-13-2

PNEC aquatic, freshwater: 25,6 µg/L

PNEC aquatic, marine water: 7,6 µg/L

PNEC sediment, freshwater: 146 mg/kg bw/day

PNEC sediment, marine water: 70,3 mg/kg bw/day

PNEC, soil: 44,3 mg/kg bw/day

PNEC sewage treatment plant (STP): 64,7 µg/L

2,2'-methylenediphenyl diisocyanate

Index No. 615-005-00-9 / EC No. 219-799-4 / CAS No. 2536-05-2

PNEC aquatic, freshwater: 1 mg/L

PNEC aquatic, marine water: 0,1 mg/L

PNEC, soil: 1 mg/kg

PNEC sewage treatment plant (STP): 1 mg/L

Diphenylmethan-2,4-diisocyanate

Index No. 615-005-00-9 / EC No. 227-534-9 / CAS No. 5873-54-1

PNEC aquatic, freshwater: 1 mg/L

PNEC aquatic, marine water: 0,1 mg/L

PNEC, soil: 1 mg/kg

PNEC sewage treatment plant (STP): 1 mg/L

Diphenylmethan-4,4-diisocyanate

Index No. 615-005-00-9 / EC No. 202-966-0 / CAS No. 101-68-8

PNEC aquatic, freshwater: > 1 mg/L

PNEC aquatic, marine water: > 0,1 mg/L

PNEC, soil: > 1 mg/kg

PNEC sewage treatment plant (STP): > 1 mg/L

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. When spraying, wear self-contained breathing apparatus. For other tasks a suitable respiratory system must be used, if local and room suction is not sufficient for keeping

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001
Print date: 24.08.2021
Version: 28

Stelpant-PU-Zinc grey
Revision date: 28.07.2021
Issue date: 28.07.2021

EN
Page 8 / 14

aerosol and solvent vapour concentration below the exposure limit values. (refer to Personal protection equipment.)

Personal protection equipment

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: Butyl caoutchouc (butyl rubber)

Thickness of the glove material > 0,4 mm ; Breakthrough time: > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

Body protection

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

*

Appearance:

Physical state:

Liquid

Colour:

refer to label

Odour:

characteristic

Odour threshold:

not applicable

pH at 20 °C:

not determined

Melting point/freezing point:

not applicable

Initial boiling point and boiling range:

not applicable

Flash point:

25 °C

Method: DIN 53213

Evaporation rate:

13,5 mg/s

Source: Xylene

flammability

Burning time:

not applicable

Upper/lower flammability or explosive limits:

Lower explosion limit:

0,6 Vol-%

Source: Hydrocarbons, C9, aromatics

Upper explosion limit:

15 Vol-%

Source: n-butyl acetate

Vapour pressure at 20 °C:

0,3051 mbar

Vapour density:

not applicable

Relative density:

Density at 20 °C:

3,11 g/cm³

Solubility(ies):

Water solubility at 20 °C:

insoluble

Partition coefficient: n-octanol/water:

see section 12

Auto-ignition temperature:

> 400 °C

Source: Hydrocarbons, C9, aromatics

Decomposition temperature:

not applicable

Viscosity at 20 °C:

115 s 4 mm

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001
Print date: 24.08.2021
Version: 28

Stelpant-PU-Zinc grey
Revision date: 28.07.2021
Issue date: 28.07.2021

EN
Page 9 / 14

Method: DIN 53211

Explosive properties:

not applicable

Oxidising properties:

not applicable

9.2. **Other information**

Solid content:

91,07 weight-%

solvent content:

Organic solvents:

8,21 weight-%

Water:

0,00 weight-%

SECTION 10: Stability and reactivity

10.1. **Reactivity**

Reacts with water, forming carbon dioxide, producing bursting hazard in closed containers due to build-up of pressure. keine, bei sachgemäßer Verwendung

10.2. **Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions. Reacts with water, forming carbon dioxide, producing bursting hazard in closed containers due to build-up of pressure.

10.4. **Conditions to avoid**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**

not applicable

10.6. **Hazardous decomposition products**

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides. keine, bei sachgemäßer Verwendung

SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]

11.1. **Information on toxicological effects**

Acute toxicity

aromatic polyisocyanate

oral, LD50, Rat: > 5000 mg/kg

Method: OECD 423

dermal, LD50, Rabbit: 9400 mg/kg

Method: OECD 402

inhalative (dust and mist), LC50, Rat: 0,31 mg/L (4 h)

Method: OECD 403

aromatics polyisocyanate prepolymer

dermal, LD50, Rabbit: > 9400 mg/kg

Method: OECD 402

n-butyl acetate

oral, LD50, Rat: 10760 mg/kg

Method: OECD 423

dermal, LD50, Rabbit: > 14112 mg/kg

Method: OECD 402

inhalative (dust and mist), LC50, Rat: 23,4 mg/L (4 h)

Method: OECD 403

Hydrocarbons, C9, aromatics

oral, LD50, Rat: 3592 mg/kg

Method: OECD 401

dermal, LD50, Rabbit: > 3160 mg/kg

Method: OECD 402

Xylene

oral, LD50, Rat: 3523 mg/kg

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001 Stelpant-PU-Zinc grey
Print date: 24.08.2021 Revision date: 28.07.2021
Version: 28 Issue date: 28.07.2021

EN
Page 10 / 14

dermal, LD50, Rabbit: 12126 mg/kg
inhalative (dust and mist), LC50, Rat: 27,124 mg/L (4 h)

zinc powder - zinc dust (stabilised)
oral, LD50, Rat: > 2000 mg/kg
inhalative (dust and mist), LC50, Rat: > 5,4 mg/L (4 h)

4,4'-methylenediphenyl diisocyanate
oral, LD50, Rat: > 2000 mg/kg
dermal, LD50, Rabbit: > 9400 mg/kg
Method: OECD 402
inhalative (dust and mist), LC50, Rat: 0,368 mg/L (4 h)
Method: OECD 403

zinc oxide
oral, LD50, Rat: > 15000 mg/kg
dermal, LD50, Rat: 2000 mg/kg
inhalative (dust and mist), LC50, Rat: > 5,7 mg/L (4 h)

2,2'-methylenediphenyl diisocyanate
oral, LD50, Rat: > 2000 mg/kg
dermal, LD50, Rabbit: > 9400 mg/kg
inhalative (dust and mist), LC50, Rat: 0,527 mg/L (4 h)
Method: OECD 403

Diphenylmethan-2,4-diisocyanate
oral, LD50, Rat: > 2000 mg/kg
dermal, LD50, Rabbit: > 9400 mg/kg
Method: OECD 402
inhalative (dust and mist), LC50, Rat: 0,387 mg/L (4 h)

Diphenylmethandiisocyanate, isomeres and homologous
oral, LD50, Rat: > 10000 mg/kg
Method: OECD 401
dermal, LD50, Rabbit: > 9400 mg/kg
Method: OECD 402
inhalative (dust and mist), LC50, Rat: 0,31 mg/L (4 h)
Method: OECD 403

Diphenylmethan-4,4-diisocyanate
dermal, LD50, Rabbit: > 9400 mg/kg
Method: OECD 402

Skin corrosion/irritation; Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

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

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Suspected of causing cancer.

STOT-single exposure; STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage. Because of the isocyanate components' properties of this and with consideration of similar preparations the following applies: This mixture may cause acute irritation and/or sensitization of airways which lead to tightness in thorax, short-breath and asthmatic complaints. After sensitization even concentrations below the exposure limit

Article No.: B100.0001 Stelpant-PU-Zinc grey
Print date: 24.08.2021 Revision date: 28.07.2021
Version: 28 Issue date: 28.07.2021

EN
Page 11 / 14

values may cause asthma. Repeated inhaling can lead to permanent illness of the respiratory tract.

Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]

Do not allow to enter into surface water or drains.

12.1. Toxicity

Very toxic to aquatic organisms.

aromatic polyisocyanate

Fish toxicity, LC50, Danio rerio (zebrafish): > 100 mg/L (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 2 mg/L (48 h)

Algae toxicity, ErC50, Desmodesmus subspicatus.: > 100 mg/L (72 h)

aromatics polyisocyanate prepolymer

Fish toxicity, LC50, Danio rerio (zebrafish): > 100 mg/L (96 h)

n-butyl acetate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 18 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 44 mg/L (48 h)

Algae toxicity, ErC50, Scenedesmus subspicatus: 647,7 mg/L (72 h)

Hydrocarbons, C9, aromatics

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 9,22 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 6,14 mg/L (48 h)

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 2,9 mg/L (72 h)

Xylene

Fish toxicity, LC50: 2,6 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 1 mg/L (48 h)

Algae toxicity, ErC50: 2,2 mg/L (72 h)

zinc powder - zinc dust (stabilised)

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 0,0002 mg/L 0 - 269 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 0,0003 mg/L (48 h)

4,4'-methylenediphenyl diisocyanate

Fish toxicity, LC50, Danio rerio (zebrafish): > 1000 mg/L (96 h)

Method: OECD 203

Algae toxicity, ErC50, Scenedesmus subspicatus: > 1640 mg/L (72 h)

Method: OECD 201

zinc oxide

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): > 1000 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): > 1000 mg/L (48 h)

Algae toxicity, ErC50, Desmodesmus subspicatus.: > 100 mg/L (72 h)

2,2'-methylenediphenyl diisocyanate

Fish toxicity, LC50, Danio rerio (zebrafish): > 1000 mg/L (96 h)

Method: OECD 203

Algae toxicity, ErC50, Scenedesmus subspicatus: > 1640 mg/L (72 h)

Method: OECD 201

Diphenylmethan-2,4-diisocyanate

Fish toxicity, LC50, Danio rerio (zebrafish): > 1000 mg/L (96 h)

Method: OECD 203

Algae toxicity, ErC50, Scenedesmus subspicatus: > 1640 mg/L (72 h)

Method: OECD 201

Diphenylmethandiisocyanate, isomeres and homologous

Fish toxicity, LC50, Danio rerio (zebrafish): > 1000 mg/L (96 h)

Method: OECD 203

Algae toxicity, ErC50, Scenedesmus subspicatus: > 1640 mg/L (72 h)

Method: OECD 201

Long-term Ecotoxicity

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001 Stelpant-PU-Zinc grey
Print date: 24.08.2021 Revision date: 28.07.2021
Version: 28 Issue date: 28.07.2021

EN
Page 12 / 14

Very toxic to aquatic life with long lasting effects.

zinc powder - zinc dust (stabilised)

Fish toxicity, NOEC, Cyprinus carpio (Common Carp): 0,0083 mg/L (28 D)

Diphenylmethandiisocyanate, isomeres and homologous

Daphnia toxicity, NOEC, Daphnia magna: > 10 mg/L (21 Exposure time (days))

Method: OECD 202

12.2. Persistence and degradability

Toxicological data are not available.

12.3. Bioaccumulative potential

Toxicological data are not available.

Bioconcentration factor (BCF)

Toxicological data are not available.

12.4. Mobility in soil

Toxicological data are not available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product Recommendation

Do not allow to enter into surface water or drains. Handle contaminated packages in the same way as the substance itself. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

List of proposed waste codes/waste designations in accordance with EWC

080111* Waste paint and varnish containing organic solvents or other dangerous substances

*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. UN number

UN 1263

14.2. UN proper shipping name

Land transport (ADR/RID): Paint
Sea transport (IMDG): PAINT
Air transport (ICAO-TI / IATA-DGR): Paint

14.3. Transport hazard class(es)

3

14.4. Packing group

III

14.5. Environmental hazards

Land transport (ADR/RID) Dangerous for the environment
Marine pollutant p

14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

Further information

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001
Print date: 24.08.2021
Version: 28

Stelpant-PU-Zinc grey
Revision date: 28.07.2021
Issue date: 28.07.2021

EN
Page 13 / 14

Land transport (ADR/RID)

tunnel restriction code D/E

Sea transport (IMDG)

EmS-No. F-E, S-E

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU legislation

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC-value (in g/L): 277

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

15.2. Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

EC No. CAS No.	Designation	REACH No.
231-175-3 7440-66-6	zinc powder - zinc dust (stabilised)	01-2119467174-37-XXXX
215-535-7 1330-20-7	Xylene	01-2119488216-32-XXXX
215-222-5 1314-13-2	zinc oxide	01-2119463881-32-XXXX
265-199-0 64742-95-6	Hydrocarbons, C9, aromatics	01-2119455851-35-XXXX
204-658-1 123-86-4	n-butyl acetate	01-2119485493-29-XXXX
202-966-0 101-68-8	Diphenylmethan-4,4-diisocyanate	01-2119457014-47-XXXX
	aromatic polyisocyanate	01-2119884131-42-XXXX
147993-65-5		
227-534-9 5873-54-1	Diphenylmethan-2,4-diisocyanate	01-2119480143-45-XXXX
202-966-0 101-68-8	4,4'-methylenediphenyl diisocyanate	01-2119457014-47-XXXX
219-799-4 2536-05-2	2,2'-methylenediphenyl diisocyanate	01-2119927323-43-XXXX

SECTION 16: Other information

Full text of classification in section 3:

Aquatic Acute 1 / H400 Hazardous to the aquatic environment
Aquatic Chronic 1 / H410 Hazardous to the aquatic environment

Resp. Sens. 1 / H334 Respiratory or skin sensitisation

Skin Sens. 1 / H317 Respiratory or skin sensitisation
Aquatic Chronic 3 / H412 Hazardous to the aquatic environment
Acute Tox. 4 / H312 Acute toxicity (dermal)
Acute Tox. 4 / H332 Acute toxicity (inhalative)
Skin Irrit. 2 / H315 Skin corrosion/irritation
Eye Irrit. 2 / H319 Serious eye damage/eye irritation
STOT SE 3 / H335 STOT-single exposure
STOT RE 2 / H373 STOT-repeated exposure

Very toxic to aquatic organisms.
Very toxic to aquatic life with long lasting effects.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Harmful to aquatic life with long lasting effects.
Harmful in contact with skin.
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause damage to organs (or state all organs affected, if known) through prolonged or

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

STEELPAINT®

Article No.: B100.0001
Print date: 24.08.2021
Version: 28

Stelpant-PU-Zinc grey
Revision date: 28.07.2021
Issue date: 28.07.2021

EN
Page 14 / 14

Asp. Tox. 1 / H304
Flam. Liq. 3 / H226
Carc. 2 / H351

Aspiration hazard
Flammable liquids
Carcinogenicity

repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
May be fatal if swallowed and enters airways.
Flammable liquid and vapour.
Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Toxic to aquatic life with long lasting effects.
May cause drowsiness or dizziness.

Aquatic Chronic 2 / H411
STOT SE 3 / H336

Hazardous to the aquatic environment
STOT-single exposure

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3	Flammable liquids	On basis of test data.
Resp. Sens. 1	Respiratory or skin sensitisation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
Carc. 2	Carcinogenicity	Calculation method.
Aquatic Acute 1	Hazardous to the aquatic environment	Calculation method.
Aquatic Chronic 1	Hazardous to the aquatic environment	Calculation method.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

* Data changed compared with the previous version