



Safety data sheet according to WHS Regulations

Printing date 22.05.2019

Version-No. 11

Revision: 12.02.2019

SECTION 1: Identification

· **1.1. Product identifier**

· Trade name / Article-No: **KLEIBERIT 501.0**

· **1.2. Relevant identified uses of the substance / mixture or uses advised against**
Restricted to professional users.

· **Application of the substance / the mixture** Adhesives

· **1.3. Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

KLEBCHEMIE

M.G.Becker GmbH & Co. KG

Max Becker Str. 4

D - 76356 Weingarten / Baden

Germany

KLEBCHEMIE

M.G.Becker GmbH & Co. KG

Max Becker Str. 4

D - 76356 Weingarten / Baden

Germany

KLEIBERIT Australia Pty Limited

Unit 36, 42-46 Wattle Road

BROOKVALE NSW 2100

Australia

KLEIBERIT Australia Pty Limited

Unit 36, 42-46 Wattle Road

BROOKVALE NSW 2100

Australia

· **Further information obtainable from:**

phone: +49 7244 62 0

FAX: +49 7244 700 0

e-mail: hse@kleiberit.com

phone: +49-7244-62-0 (Germany)

FAX: +49-7244-700-0

email: hse@kleiberit.com

phone: +61-2-9907 1411

FAX: +61-2-9938 4091

· **1.4. Emergency telephone number:**

+61 2 8014 4558 Australia (English)

+65 3158 1412

Asia Pacific regional number (English, Bahasa Malaysia, Hindi, Japanese, Korean, Mandarin, Tagalog)

SECTION 2: Hazard Identification

· **2.1. Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008 - GHS/CLP**

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Carc. 2 H351 Suspected of causing cancer.

STOT SE 3 H335 May cause respiratory irritation.

STOT RE 2 H373 May cause damage to the respiratory system through prolonged or repeated exposure.

Route of exposure: Inhalation.

(Contd. on page 2)

AUS

Safety data sheet

according to WHS Regulations

Printing date 22.05.2019

Version-No. 11

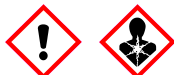
Revision: 12.02.2019

Trade name / Article-No: **KLEIBERIT 501.0**

(Contd. of page 1)

2.2. Label elements

Hazard pictograms



GHS07 GHS08

Signal word Danger

Hazard-determining components of labelling:

diphenylmethane-diisocyanate, isomers and homologous

Hazard statements

H332 Harmful if inhaled.

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 respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.

Precautionary statements

P260 Do not breathe vapours.

P280 Wear protective gloves / eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314 Get medical advice/attention if you feel unwell.

2.3. Other hazards

Results of PBT and vPvB assessment

- PBT: Not applicable.

- vPvB: Not applicable.

SECTION 3: Composition and information on ingredients

3.2 Mixtures

- Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

Registry-No's	Identification / Classification GHS-CLP	%
9016-87-9	diphenylmethane-diisocyanate, isomers and homologous Acute Tox. 2, H330; Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	40-50%
101-68-8	diphenylmethane-4,4'-diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	5-10%
26447-40-5	Diphenylmethane diisocyanate (isomer mixture) Acute Tox. 2, H330; Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	3-5%
5873-54-1	diphenylmethane-2,4'-diisocyanate Acute Tox. 2, H330; Resp. Sens. 1, H334; STOT RE 2, H373; Skin Sens. 1, H317; STOT SE 3, H335; Acute Tox. 5, H303	≤3%
2536-05-2	2,2'-methylenediphenyl diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	<0.5%

(Contd. on page 3)

Safety data sheet according to WHS Regulations

Printing date 22.05.2019

Version-No. 11

Revision: 12.02.2019

Trade name / Article-No: KLEIBERIT 501.0

(Contd. of page 2)

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First Aid Measures

- **4.1. Description of first aid measures**
- **General information:**
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 and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **Information for doctor:**
- **4.2. Most important symptoms and effects, both acute and delayed**
Asthma attacks
Allergic reactions
- **4.3. Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire Fighting Measures

- **5.1. Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2. Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Isocyanates
Nitrogen oxides
Nitrogen oxides (NO_x)
Traces:
Hydrogen cyanide (HCN)
- **5.3. Advice for firefighters**
- **Protective equipment:**
Mount respiratory protective device.
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.
Ensure adequate ventilation
Particular danger of slipping on leaked/spilled product.
Use respiratory protective device against the effects of fumes/dust/aerosol.
- **6.2. Environmental precautions:** No special measures required.
- **6.3. Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 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.

(Contd. on page 4)

Safety data sheet according to WHS Regulations

Printing date 22.05.2019

Version-No. 11

Revision: 12.02.2019

Trade name / Article-No: KLEIBERIT 501.0

See Section 13 for disposal information.

(Contd. of page 3)

SECTION 7: Handling and storage

- **Handling:**

- **7.1. Precautions for safe handling**

Appropriate regular employee training.

Handle the substance preferably in closed system

Enclosure or extractor facilities are required.

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the vapour concentration below the workplace limit, wear an adequate respiratory protective device.

Not less than 3-5 air exchanges per hour

Prevent formation of aerosols.

Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided.

Spraying: in vented cabin with laminar air flow

Wear protective gloves/protective clothing/eye protection/face protection.

Caution: Do not refill residue into storage receptacles.

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.

Avoid contact with skin and eyes.

Absorb spilled amount immediately.

It is advised against using the product if there is a sensitivity of the airways or skin (asthma, chronic bronchitis, chronic skin disease)

additional to professional application with multiple and/or significant contact

limit the exposure to 4 hours

- **Information about fire - and explosion protection:** No special measures required.

- **General protective and hygienic measures:**

Do not inhale gases / fumes / aerosols.

Immediately remove all soiled and contaminated clothing

- **7.2. Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** Keep container tightly closed.

- **Information about storage in one common storage facility:** Observe the national regulations.

- **Further information about storage conditions:** Protect from humidity and water.

- **7.3. Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1. Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

- **PNECs**

9016-87-9 diphenylmethane-diisocyanate, isomers and homologous

PNEC- Freshwater >1 mg/l (x00)

PNEC-seawater >0.1 mg/l (x00)

PNEC-soil >1 mg/kg (x00)

PNEC-wastewater treatment plant >1 mg/l (x00)

101-68-8 diphenylmethane-4,4'-diisocyanate

PNEC- Freshwater 1 mg/l (x00)

PNEC-seawater 0.1 mg/l (x00)

PNEC-periodic release 10 mg/l (x00)

PNEC-soil 1 mg/kg (x00)

(Contd. on page 5)

Safety data sheet according to WHS Regulations

Printing date 22.05.2019

Version-No. 11

Revision: 12.02.2019

Trade name / Article-No: KLEIBERIT 501.0*(Contd. of page 4)*

PNEC-wastewater treatment plant 1 mg/l (x00)

26447-40-5 Diphenylmethane diisocyanate (isomer mixture)

PNEC- Freshwater 1 mg/l (x00)
 PNEC-seawater 0.1 mg/l (x00)
 PNEC-soil 1 mg/kg (x00)
 PNEC-wastewater treatment plant 1 mg/l (x00)

5873-54-1 diphenylmethane-2,4'-diisocyanate

PNEC- Freshwater >1 mg/l (x00)
 PNEC-seawater >0.1 mg/l (x00)
 PNEC-soil >1 mg/kg (x00)
 PNEC-wastewater treatment plant >1 mg/l (x00)

2536-05-2 2,2'-methylenediphenyl diisocyanate

PNEC- Freshwater >1 mg/l (x00)
 PNEC-seawater >0.1 mg/l (x00)
 PNEC-soil >1 mg/kg (x00)
 PNEC-wastewater treatment plant >1 mg/l (x00)

CAS No.	Designation of material	%	Type	Value	Unit
---------	-------------------------	---	------	-------	------

9016-87-9 diphenylmethane-diisocyanate, isomers and homologous

NES (Australia)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen, as -NCO				
WES (Australia)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen, as -NCO				
WES (New Zealand)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ sen, vapours, mist, dust; as -NCO				

101-68-8 diphenylmethane-4,4'-diisocyanate

NES (Australia)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO				
WES (Australia)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO				
WES (New Zealand)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ sen, vapours, mist, dust; as -NCO				
PEL (USA)	Peak limitation: 0.2 mg/m ³ , 0.02 ppm				
REL (USA)	Long-term value: 0.05 mg/m ³ , 0.005 ppm Peak limitation: 0.2* mg/m ³ , 0.02* ppm *10-min				
TLV (USA)	Long-term value: 0.051 mg/m ³ , 0.005 ppm				

26447-40-5 Diphenylmethane diisocyanate (isomer mixture)

NES (Australia)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen, as -NCO				
WES (Australia)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen, as -NCO				

(Contd. on page 6)

Safety data sheet according to WHS Regulations

Printing date 22.05.2019

Version-No. 11

Revision: 12.02.2019

Trade name / Article-No: **KLEIBERIT 501.0**

(Contd. of page 5)

WES (New Zealand) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
sen, vapours, mist, dust; as -NCO

5873-54-1 diphenylmethane-2,4'-diisocyanate

NES (Australia) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
Sen, as -NCO

WES (Australia) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
Sen, as -NCO

WES (New Zealand) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
sen, vapours, mist, dust; as -NCO

2536-05-2 2,2'-methylenediphenyl diisocyanate

NES (Australia) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
Sen, as -NCO

WES (Australia) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
Sen, as -NCO

WES (New Zealand) Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
sen, vapours, mist, dust; as -NCO

8.2. Exposure controls

limit the exposure to:

8 hours

additional to professional application with multiple and/or significant contact

limit the exposure to 4 hours

Personal protective equipment:

- **General protective and hygienic measures:** Do not inhale gases / fumes / aerosols.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation:

Filter A/P2 (EN 14387)

Use suitable respiratory protective device only when aerosol or mist is formed.

At spray application respiratory protection must be worn.

- **Protection of hands:** Protective gloves

- **Material of gloves A** Nitrile rubber - NBR: AlphaTec® (coating thickness not applicable)

- **Penetration time of glove material** Permeation: ≥ 480 min

- **Eye protection:** Safety glasses

- **Body protection:** Protective work clothing

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

Form: Fluid

Colour: Brown

- **Odour:** Weak, characteristic

- **Odour threshold:** Not determined

- **pH-value:** Not applicable

Change in condition

- **Melting point/freezing point:** Not determined

(Contd. on page 7)

Safety data sheet according to WHS Regulations

Printing date 22.05.2019

Version-No. 11

Revision: 12.02.2019

Trade name / Article-No: **KLEIBERIT 501.0**

(Contd. of page 6)

Initial boiling point and boiling range:	208 °C
Softening temperature / range:	Not determined
· Flash point:	212 °C
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	>400 °C
· Decomposition temperature:	~260 °C (CAS 101-68-8)
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined
Upper:	Not determined
· Vapour pressure:	Not determined.
· Density at 20 °C:	ca. 1.13 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined
· Evaporation rate	Not applicable
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined
· Viscosity:	
Dynamic at 20 °C:	ca. 7500 mPas Brookfield RVT
Kinematic:	Not determined.
· 9.2. Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1. Reactivity**
see item 10.3
No further relevant information available.
- **10.2. Chemical stability** Stable when stored and used properly.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3. Possibility of hazardous reactions** No dangerous reactions known.
- **10.4. Conditions to avoid** No further relevant information available.
- **10.5. Incompatible materials:** No further relevant information available.
- **10.6. Hazardous decomposition products:** Isocyanates

SECTION 11: Toxicological information

- **11.1. Information on toxicological effects**
- **Acute toxicity**
Harmful if inhaled.
- **LD/LC₅₀ values relevant for classification:**
- 9016-87-9 diphenylmethane-diisocyanate, isomers and homologous**
- Oral LD₅₀ >10,000 mg/kg (rat)
- Dermal LD₅₀ >9,400 mg/kg (rabbit)
- Inhalative LC₅₀/4h_(dust,mist) 0.31 mg/l (rat) (OECD 403)
- 101-68-8 diphenylmethane-4,4'-diisocyanate**
- Oral LD₅₀ >10,000 mg/kg (rat) (84/449/EWG, B.1)

(Contd. on page 8)

Safety data sheet according to WHS Regulations

Printing date 22.05.2019

Version-No. 11

Revision: 12.02.2019

Trade name / Article-No: KLEIBERIT 501.0

(Contd. of page 7)

Dermal LD₅₀ >9,400 mg/kg (rabbit) (OECD 402)Inhalative LC₅₀/4h_(dust,mist) 0.49 mg/l (rat) (OECD 403)**26447-40-5 Diphenylmethane diisocyanate (isomer mixture)**Oral LD₅₀ >10,000 mg/kg (rat)Dermal LD₅₀ >9,400 mg/kg (rabbit)Inhalative LC₅₀/4h_(dust,mist) 0.49 mg/l (rat)**5873-54-1 diphenylmethane-2,4'-diisocyanate**Oral LD₅₀ >2,000 mg/kg (rat) (84/449/EWG, B.1)Dermal LD₅₀ >9,400 mg/kg (rabbit) (OECD 402)Inhalative LC₅₀/4h_(dust,mist) 0.387 mg/l (rat) (OECD 403)**2536-05-2 2,2'-methylenediphenyl diisocyanate**Oral LD₅₀ >2,000 mg/kg (rat)Dermal LD₅₀ >9,400 mg/kg (rabbit)Inhalative LC₅₀/4h_(dust,mist) 0.527 mg/l (rat)· **Primary irritant effect:**· **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.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**· **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 respiratory system through prolonged or repeated exposure. Route of exposure:
Inhalation.· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1. Toxicity**· **Aquatic toxicity:****9016-87-9 diphenylmethane-diisocyanate, isomers and homologous**LC₅₀ >1,000 mg / l / 96h (fish)EC₅₀ >1,000 mg / l / 24h (water flea - daphnia)EC₅₀ >1,640 mg / l / 72h (algae)**101-68-8 diphenylmethane-4,4'-diisocyanate**LC₅₀ >1,000 mg / l / 96h (fish)EC₅₀ >1,000 mg / l / 24h (water flea - daphnia)IC₅₀ >1,640 mg / l / 72h (algae)**26447-40-5 Diphenylmethane diisocyanate (isomer mixture)**LC₅₀ >1,000 mg / l / 96h (fish)EC₅₀ >1,000 mg / l / 24h (water flea - daphnia)

(Contd. on page 9)

Safety data sheet according to WHS Regulations

Printing date 22.05.2019

Version-No. 11

Revision: 12.02.2019

Trade name / Article-No: **KLEIBERIT 501.0**

(Contd. of page 8)

5873-54-1 diphenylmethane-2,4'-diisocyanateLC₅₀ >1,000 mg / l / 96h (Zebrafish - Danio rerio)EC₅₀ >1,000 mg / l / 24h (water flea - daphnia)IC₅₀ >1,640 mg / l / 72h (Chlorophyceae - Scenedesmus subspicatus)**2536-05-2 2,2'-methylenediphenyl diisocyanate**LC₅₀ >1,000 mg / l / 96h (fish)EC₅₀ >1,000 mg / l / 24h (water flea - daphnia)EC₅₀ >1,640 mg / l / 72h (Chlorophyceae - Scenedesmus subspicatus)· **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.· **Ecotoxicological effects:**· **Behaviour in sewage processing plants:**· **Remark:**

At correct sewage disposal in small quantities to biological sewage plants failures of the activated sludge are not expected.

· **12.5. Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **12.6. Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations**· **13.1. Waste treatment methods**· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

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

Non contaminated packagings may be recycled.

Empty contaminated packagings thoroughly. Disposal must be made according to official regulations.

SECTION 14: Transport information· **14.1. UN-Number**· **DOT, ADG, ADN, IMDG, IATA**

Void

· **14.2. UN proper shipping name**· **DOT, ADG, ADN, IMDG, IATA**

Void

· **14.3. Transport hazard class(es)**· **DOT**· **Class**

Void

No dangerous good

· **Class**

Void

· **14.4. Packing group**· **DOT, ADG, IMDG, IATA**

Void

· **14.5. Environmental hazards:**· **Marine pollutant:**

No

· **14.6. Special precautions for user**

Not applicable.

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

Not applicable.

(Contd. on page 10)

AUS

Safety data sheet

according to WHS Regulations

Printing date 22.05.2019

Version-No. 11

Revision: 12.02.2019

Trade name / Article-No: **KLEIBERIT 501.0**

(Contd. of page 9)

SECTION 15: Regulatory information

- **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
See position no 2 - Hazards Identification
- **Australian Inventory of Chemical Substances: (Substances not listed)**

All ingredients are listed.
- **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations: Restricted to professional users.**
- **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**
H303 May be harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
- **Department issuing SDS:** Safety & Environment
- **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 européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
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)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 5: Acute toxicity – Category 5
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
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