Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

Date last verification : 2021-12-01 **Version :** 4.1
Revision date : 2021-02-08
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Indication of changes : §**1.2** - §**2.3** - §**4.1** - §**4.2** - §**5.1** - §**5.2** - §**5.3** - §**6.1** - §**7.1** - §**7.2** - §**8.2** - §**10.6** - §**11.1** - §**13.1**

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

1.1. Product identifier

Safety Data Sheet : 32645

Product name: : PROTOLIN 4000 HARS

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

Relevant identified uses : resin

Uses advised against : No information available.

1.3. Details of the supplier of the safety data sheet

Supplier : LOVINK ENERTECH B.V.

Postbus 111
7060 AC Terborg
The Netherlands

Telephone : +31 315 335600

Responsible for the compilation of the SDS on behalf of the supplier/ manufacturer : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)497-598315

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

2.2. Label elements

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

none

Remarks on labelling none.

2.3. Other hazards

Special danger of slipping by leaking/spilling product.
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition / information on ingredients

3.2. Mixture

CAS No.	EC No.	REACH No.	Concentration (%)	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL / M-factor / ATE
LIMESTONE					
1317-65-3	215-279-6		≥25.0 - <55.0		
CASTOR OIL					
8001-79-4	232-293-8		≥15.0 - <40.0		

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information : When in doubt or if symptoms are observed, get medical advice.

Following inhalation : Provide fresh air.
Following skin contact : After contact with skin, wash immediately with plenty of water and soap.
After eye contact : Rinse immediately carefully and thoroughly with eye-bath or water.
Following ingestion : Rinse mouth thoroughly with water. Give nothing to eat or drink.

Self-protection of the first aider : First aider: Pay attention to self-protection!

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

Adverse human health effects and symptoms / Organs affected:

Under normal conditions of use no symptoms and effects are to be expected. However, deviation of the intended use may result in the following symptoms dependent on the route of exposure:

Following inhalation : Prickling sensation. May cause:, sore throat

Following skin contact : Prickling sensation. May cause:, redness, Has degreasing effect on the skin.

After eye contact : Prickling sensation. May cause:, redness

Following ingestion : Prickling sensation. May cause:, sore throat

Further information: SECTION 11: Toxicological information

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

Notes for the doctor : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Fire class B: - Dry extinguishing powder. - Foam. - Carbon dioxide (CO2).

Unsuitable extinguishing media : Wet chemical. - Water.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated : Carbon monoxide - Carbon dioxide (CO2) - calcium oxide

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Flame-retardant protective clothing. (EN 469)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protection equipment. Special danger of slipping by leaking/spilling product.

6.1.1. For non-emergency personnel

Protective equipment : Personal protection equipment: see section 8.

Emergency procedures : not applicable.

6.1.2. For emergency responders

Personal protection equipment : Personal protection equipment: see section 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

6.3.2. For cleaning up

Collect in closed and suitable containers for disposal. Clean contaminated articles and floor according to the environmental legislation.

6.3.3. Other information

not determined

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling	: No special handling advices are necessary.
Measures to prevent fire	: The product is not:Flammable.No special fire protection measures are necessary.
Measures to prevent aerosol and dust generation	: Not dust explosive.
Environmental precautions	: Avoid release to the environment.
Advices on general occupational hygiene	: When using do not eat, drink, smoke, sniff.Take off contaminated clothing.Wash hands before breaks and after work.
Further information	: No information available.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions	: Store in a closed container. - dark. - Store in a cool dry place. - Keep away from: ignition sources or heat sources.
storage temperature	: No information available.
Requirements for storage rooms and vessels	: No information available.
Storage class	: No information available.
Materials to avoid	: No information available.
Further information on storage conditions	: No information available.

7.3. Specific end use(s)

Recommendation	: not applicable
Industrial sector specific solutions	: No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

		Belgium		China		United Kingdom			
Substance name	Limit value	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm		
LIMESTONE				(respirable dust)		(inhalable dust)			
	8 hour(s)	10		4		10			
	15 minutes					30			
	C								
LIMESTONE				(dust)		(respirable dust)			
	8 hour(s)			8		4			
	15 minutes					12			
	C								

Source : SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, LOLI DB, 2000/39/EC, GWBB/VLEP, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), TRGS 905, TRGS 910, Austrian OEL Regulation, Dutch Social-Economic Council (SER), US OSHA, EU OSHA, TRGS 900, ACGIH®, 2009/161/EU

20 °C, 1013 mbar: European Union / China / South Korea
25 °C, 1013 mbar: United States / Canada / Japan

[x]: appraisal period x minutes
C: peak limitation
H: skin resorptive
S: Statutory threshold limit value
ALARA: As low as reasonably achievable (ALARA principle).

Remark Occupational exposure limit values

none

DNEL (Derived No Effect Level (DNEL-value))

No information available.

PNEC (Predicted No Effect Concentration (PNEC-value))

No information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Safe handling: see section 7 Technical measures and the application of suitable work processes have priority over personal protection equipment.

8.2.2. Personal protection equipment

Eye/face protection : Suitable eye protection: Eye glasses with side protection.

Skin protection

Hand protection : Suitable material: Butyl caoutchouc (butyl rubber).

Body protection : Only wear fitting, comfortable and clean protective clothing. Suitable protective clothing: lab coat. Chemical resistant safety shoes.

Respiratory protection : If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Use only respiratory protection equipment with CE-symbol including four digit test number. Suitable respiratory protection apparatus: Filter type: AX.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid, viscous
Colour	:	white - yellow
Odour	:	No information available.
Odour threshold	:	No information available.
pH	:	not applicable
Melting point/freezing point	:	No information available.
Initial boiling point and boiling range	:	No information available.
Flash point	:	>125 °C
Evaporation rate	:	No information available.
flammability	:	No information available.
Upper/lower flammability or explosive limits		
Upper explosion limit	:	No information available.
Lower explosion limit	:	No information available.
Vapour pressure	:	No information available.
Vapour density	:	No information available.
Relative density	:	No information available.
Solubility(ies)		
Water	:	practically insoluble
Partition coefficient n-octanol/water	:	No information available.
Auto-ignition temperature	:	No information available.
Decomposition temperature	:	No information available.
Viscosity	:	≥1.0 Pa•s (25 °C)
Explosive properties:	:	not applicable
Oxidising properties	:	not applicable

9.2. Other information

Critical temperature Tc	:	not applicable
Fat solubility	:	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Stable under recommended storage and handling conditions.

10.5. Incompatible materials

Oxidising substances - Acids - Strong bases

10.6. Hazardous decomposition products

Acrolein - Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity : not applicable

Following ingestion : No
Skin contact : No
Inhalation : No

Skin corrosion/irritation : not applicable

Serious eye damage/eye irritation : not applicable

Respiratory or skin sensitisation : not applicable

Germ cell mutagenicity : No indications of human germ cell mutagenicity exist.

Carcinogenicity : No indication of human carcinogenicity.

Reproductive toxicity : No indications of human reproductive toxicity exist.

STOT-single exposure : not applicable

STOT-repeated exposure : not applicable

Aspiration hazard : not applicable

Symptoms

Following inhalation : Prickling sensation. May cause:, sore throat

Following skin contact : Prickling sensation. May cause:, redness, Has degreasing effect on the skin.

After eye contact : Prickling sensation. May cause:, redness

Following ingestion : Prickling sensation. May cause:, sore throat

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

11.2.2. Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

No information available.

12.2. Persistence and degradability

Biodegradation : No information available.

Chemical oyxgen demand (COD)	:	No information available.
Biochemical oxygen demand	:	No information available.
BOD5/COD ratio	:	No information available.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Bioconcentration factor (BCF)	:	No information available.
Partition coefficient n-octanol/water	:	No information available.

12.4. Mobility in soil

No information 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. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

12.8. Additional ecotoxicological information

Observe local regulations concerning effluent treatment. The viscous consistency of the product can lead to problems in transport pipes and sewage plants.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Waste should not be disposed of by release to water, drainage, sewer, or the ground. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Other disposal recommendations : not applicable

SECTION 14: Transport information

14.1. UN number or ID number

No dangerous good in sense of these transport regulations.

14.2. UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4. Packing group

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

No dangerous good in sense of these transport regulations.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

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

International regulations:

Minamata Convention on Mercury : not applicable

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

not applicable

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:

not applicable

Overall Assessment on CMR properties

according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

Regulation (EC) No 850/2004 [POP-Regulation]

not applicable

Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.

not applicable

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Additional information

none

Relevant H-phrases (Number and full text)

not applicable

Abbreviations and acronyms

ACGIH®	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
BuAc	n-Butyl acetate
CAS	Chemical Abstracts Service
CCID	New Zealand Chemical Classification and Information Database
DSL	Canada Domestic Substances List
ECHA-RAC	ECHA Committee for Risk Assessment
EFSA	European Food Safety Authority
EHSP	OECD Environment, Health, and Safety Publication
EmS	Emergency Schedule
EU-CLH	European Union Harmonised Classification and Labelling
GESTIS	Databases on hazardous substances of the German Social Accident Insurance
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GWBB-VLEP	Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle
HHS	U.S. Department of Health and Human Services
HSDB	Hazardous Substances Data Bank
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INRS	French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases
JP-GHS	Japan GHS Basis for Classification Data
KHC	Known human carcinogens.
LEL	Lower explosion limit
LOLI	LOLI (List of Lists) Database
n.a.	not applicable
NDSL	Canada Non-domestic Substance List
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme
NIER	South Korea National Institute of Environmental Research Evaluations
NLM	United States National Library of Medicine
NTP	National Toxicology Program
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
OSHA	Occupational Safety & Health Administration
OUE	European Odour Unit

RAHC	Reasonably Anticipated Human Carcinogen
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCOEL	Scientific Committee on Occupational Exposure Limits (EU)
SIDS	OECD Screening Information Data Sets
SUVA	Swiss Accident Insurance Fund
TRGS	Technische Regeln für Gefahrstoffe
TSCA	The Toxic Substances Control Act Chemical Substance Inventory
TWA	Time Weighted Average
UEL	Upper explosion limit
UN	United Nations
US-EPA	United States Environmental Protection Agency

Disclaimer: The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Philips Electronics Nederland B.V. makes no warranty as to its contents, nor as to its fitness for any particular purpose or use.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

Date last verification : 2023-03-15 **Version :** 10.1
Revision date : 2021-12-14
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Indication of changes : §**1.2** - §**2.2** - §**2.3** - §**4.1** - §**4.2** - §**5.1** - §**6.1** - §**6.2** - §**7.1** - §**8.1** - §**8.2** - §**10.4** - §**10.5** - §**10.6** - §**11.1** - §**13.1**

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

1.1. Product identifier

Safety Data Sheet : 24742

Product name: : PROTOLIN HARDER

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

Relevant identified uses : Hardener

Uses advised against : No information available.

1.3. Details of the supplier of the safety data sheet

Supplier : LOVINK ENERTECH B.V.

Postbus 111
7060 AC Terborg
The Netherlands

Telephone : +31 315 335600

Responsible for the compilation of the SDS on behalf of the supplier/ manufacturer : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)497-598315

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation	Category 2	H315
Respiratory or skin sensitisation	Category 1	H317
Serious eye damage/eye irritation	Category 2	H319
Acute toxicity, Inhalation	Category 4	H332
Respiratory or skin sensitisation	Category 1	H334
Specific target organ toxicity - single exposure	Category 3	H335
Carcinogenicity	Category 2	H351
Specific target organ toxicity - repeated exposure	Category 2	H373

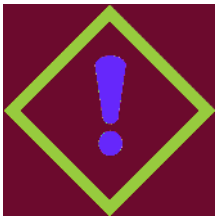
2.1.2. Additional information

Full text of H- and EUH-statements: see section 16.

2.2. Label elements

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

Hazard pictograms



Signal word : Danger !

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH204	Contains isocyanates. May produce an allergic reaction.

Precautionary statements

P201	Obtain special instructions before use.
P260.2	Do not breathe mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280.5	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container according to local hazardous waste disposal regulations.

Hazardous ingredients 4,4'-METHYLENEDIPHENYL DIISOCYANATE
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE
DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES
2,2'-METHYLENEDIPHENYL DIISOCYANATE

Remarks on labelling As from 24 August 2023 adequate training is required before industrial or professional use.

2.3. Other hazards

Special danger of slipping by leaking/spilling product.
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition / information on ingredients

3.2. Mixture

CAS No.	EC No.	REACH No.	Concentration (%)	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL / M-factor / ATE
4,4'-METHYLENEDIPHENYL DIISOCYANATE					
101-68-8	202-966-0	01-2119457014-47	≥50.0 - <75.0	GHS07 GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2 EUH204	STOT SE 3; H335; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % Skin Irrit. 2; H315; C: ≥5 % Eye Irrit. 2; H319; C: ≥5 %
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE					
5873-54-1	227-534-9	01-2119480143-45	≥25.0 - <50.0	GHS07	Eye Irrit. 2; H319; C: ≥5 %

CAS No.	EC No.	REACH No.	Concentration (%)	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL / M-factor / ATE
				GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2	Skin Irrit. 2; H315; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % STOT SE 3; H335; C: ≥5 %
DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES					
9016-87-9	905-804-3		≥10.0 - <20.0	GHS07 GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2	Eye Irrit. 2; H319; C: ≥5 % Skin Irrit. 2; H315; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % STOT SE 3; H335; C: ≥5 %
2,2'-METHYLENEDIPHENYL DIISOCYANATE					
2536-05-2	219-799-4	01-2119927323-43	≥3.0 - <5.0	GHS07 GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2 EUH204	Eye Irrit. 2; H319; C: ≥5 % Skin Irrit. 2; H315; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % STOT SE 3; H335; C: ≥5 %

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information : Remove casualty to fresh air and keep warm and at rest. Transport affected person in lying position, in case of shortness of breath in half-sitting position. Remove contaminated, saturated clothing immediately. Wear personal protection equipment (refer to section 8). Remove affected person from the danger area and lay down. Do not leave affected person unattended. Never give anything by mouth to an unconscious person or a person with cramps. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Following inhalation : In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

Following skin contact : Rinse cautiously with water for several minutes. Call a doctor.

After eye contact : Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

Following ingestion : Rinse mouth thoroughly with water. Give nothing to eat or drink. Never give anything by mouth to an unconscious person or a person with cramps. Immediately call a doctor.

Self-protection of the first aider : First aider: Pay attention to self-protection!

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

Adverse human health effects and symptoms / Organs affected:

Organs affected:, lung, Take into account the (potential) effects of a hydrolysis or decomposition reaction or a reaction with water.

Following inhalation : Irritating feeling. May cause:, sore throat, Cough, Asthmatic complaints, Respiratory complaints

Following skin contact : Irritating feeling. May cause:, redness, pain

After eye contact : Irritating feeling. May cause:, Allergic reactions, Has degreasing effect on the skin.

Following ingestion : Irritating feeling. May cause:, sore throat, Abdominal pain

Further information: SECTION 11: Toxicological information

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

Notes for the doctor : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Fire class B: - Carbon dioxide (CO2). - Foam. - Dry extinguishing powder.

Unsuitable extinguishing media : Wet chemical. - Water.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated : Nitrogen oxides (NOx) - Hydrogen cyanide (hydrocyanic acid) - isocyanate vapours

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing. (EN 469)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protection equipment. Special danger of slipping by leaking/spilling product.

6.1.1. For non-emergency personnel

Protective equipment : Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Emergency procedures : Health hazard. See section 6 and 4 of the safety data sheet. Health hazard! Evacuate area.

6.1.2. For emergency responders

Personal protection equipment : Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2. Environmental precautions

Collect spillage. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Do not allow to enter into soil/subsoil. Ensure waste is collected and contained.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

6.3.2. For cleaning up

Collect in closed and suitable containers for disposal. Clean contaminated articles and floor according to the environmental legislation.

6.3.3. Other information

not determined

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures : Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used.

Advices on safe handling : Do not breathe gas/fumes/vapour/spray.Avoid exposure - obtain special instructions before use.Do not get in eyes, on skin, or on clothing.Provide adequate ventilation as well as local exhaustion at critical locations. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Measures to prevent fire : The product is not:Flammable.No special fire protection measures are necessary.

Measures to prevent aerosol and dust generation : Use only in well-ventilated areas.Provide adequate ventilation as well as local exhaustion at critical locations.

Environmental precautions : Avoid release to the environment.

Advices on general occupational hygiene : When using do not eat, drink, smoke, sniff.Take off contaminated clothing.Wash hands before breaks and after work.

Further information : No information available.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions : Store in a closed container. - Store in a well-ventilated place. - Keep container dry.

storage temperature : No information available.

Requirements for storage rooms and vessels : No information available.

Storage class : No information available.

Materials to avoid : No information available.

Further information on storage conditions : No information available.

7.3. Specific end use(s)

Recommendation : not applicable

Industrial sector specific solutions : No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

		The Netherlands		Germany		France		Austria	
Substance name	Limit value			mg/m³	ppm	mg/m³	ppm	mg/m³	ppm
4,4'-METHYLENEDIPHENYL DIISOCYANATE					H				
	8 hour(s)					0.1		0.05	
	15 minutes					0.2[5]		0.1[5]	0.01[5]
	C			0.05					
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE	8 hour(s)			0.05				0.05	0.005
	15 minutes							0.1[5]	0.01[5]
	C			0.1					
DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES				(MDI, inhalable dust)					
	8 hour(s)			0.05					
	15 minutes			0.05					
	C			0.1					
2,2'-METHYLENEDIPHENYL DIISOCYANATE		(Cyanides)	H S						
	8 hour(s)	1		0.05				0.05	0.05
	15 minutes	5		0.05				0.1[5]	0.01[5]
	C			0.10					

		Belgium		Switzerland		China		Spain	
Substance name	Limit value	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm
4,4'-METHYLENEDIPHENYL DIISOCYANATE	8 hour(s)	0.052				0.05		0.052	
	15 minutes			0.02		0.1			
	C								
2,2'-METHYLENEDIPHENYL DIISOCYANATE				(Isocyanates)		(Cyanides)	H		
	8 hour(s)			0.02		1			
	15 minutes								
	C			0.02					

		Norway		Poland		Portugal		Russia	
Substance name	Limit value	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm
4,4'-METHYLENEDIPHENYL DIISOCYANATE									H
	8 hour(s)		0.005	0.03			0.005	0.5	
	15 minutes		0.01	0.09					
	C								
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE	8 hour(s)			0.03					
	15 minutes			0.09					
	C								
2,2'-METHYLENEDIPHENYL DIISOCYANATE	8 hour(s)			0.03					
	15 minutes			0.09					
	C								

		Sweden							
Substance name	Limit value	mg/m³	ppm						
4,4'-METHYLENEDIPHENYL DIISOCYANATE	8 hour(s)	0.03							
	15 minutes	0.05[5]							
	C								
2,2'-METHYLENEDIPHENYL DIISOCYANATE	8 hour(s)	0.03							
	15 minutes								
	C	0.05							

Source : SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, LOLI DB, 2000/39/EC, GWBB/VLEP, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), TRGS 905, TRGS 910, Austrian OEL Regulation, Dutch Social-Economic Council (SER), US OSHA, EU OSHA, TRGS 900, ACGIH®, 2009/161/EU

20 °C, 1013 mbar: European Union / China / South Korea
25 °C, 1013 mbar: United States / Canada / Japan
[x]: appraisal period x minutes
C: peak limitation
H: skin resorptive
S: Statutory threshold limit value
ALARA: As low as reasonably achievable (ALARA principle).

Remark Occupational exposure limit values

Provide adequate ventilation as well as local exhaustion at critical locations.

DNEL (Derived No Effect Level (DNEL-value))

		DNEL worker			
		systemic		local	
Substance name	**Exposure route**	**long-term**	**short-term**	**long-term**	**short-term**
4,4'-METHYLENEDIPHENYL DIISOCYANATE	oral [mg/kg bw/day]	Not required.			
	Inhalation [mg/m³] 00			0.05	0.1
	dermal [mg/kg bw/day]				
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE	oral [mg/kg bw/day]	Not required.			
	Inhalation [mg/m³] 00			0.05	0.1
	dermal [mg/kg bw/day]				
2,2'-METHYLENEDIPHENYL DIISOCYANATE	oral [mg/kg bw/day]	Not required.			
	Inhalation [mg/m³] 00			0.05	0.1
	dermal [mg/kg bw/day]				

PNEC (Predicted No Effect Concentration (PNEC-value))

Substance name	**aquatic, freshwater** [mg/L]	**aquatic, marine water** [mg/L]	**aquatic, intermittent release** [mg/L]	**sewage treatment plant** [mg/L]	**sediment, freshwater** [mg/kg sediment dw]	**sediment, marine water** [mg/kg sediment dw]	**soil** [mg/kg soil dw]
4,4'-METHYLENEDIPHENYL DIISOCYANATE	1	0.1	10	1			1
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE	1	0.1	10	1			1
2,2'-METHYLENEDIPHENYL DIISOCYANATE	1	0.1	10	1			1

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Safe handling: see section 7

8.2.2. Personal protection equipment

Eye/face protection : Suitable eye protection: acid-resistant goggles.

Skin protection

Hand protection : Suitable material: NBR (Nitrile rubber). Butyl caoutchouc (butyl rubber). For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Body protection : Suitable protective clothing: Only wear fitting, comfortable and clean protective clothing. Chemical protection clothing. Protective sleeves. Chemical resistant safety shoes.

Respiratory protection : If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Use only respiratory protection equipment with CE-symbol including four digit test number. Suitable respiratory protection apparatus: Filter type: A.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	No information available.
Colour	:	brown
Odour	:	earthy
Odour threshold	:	No information available.
pH	:	not applicable
Melting point/freezing point	:	-30 °C
Initial boiling point and boiling range	:	>300 °C
Flash point	:	202 °C
Evaporation rate	:	No information available.
flammability	:	No information available.
Upper/lower flammability or explosive limits		
Upper explosion limit	:	No information available.
Lower explosion limit	:	No information available.
Vapour pressure	:	1.2 kPa (20 °C)
Vapour density	:	No information available.
Relative density	:	1.22 (water=1) (20 °C)
Solubility(ies)		
Water	:	not applicable
Partition coefficient n-octanol/water	:	No information available.
Auto-ignition temperature	:	500 °C
Decomposition temperature	:	200 °C
Viscosity	:	26.8 mPa•s (20 °C)
Explosive properties:	:	not applicable
Oxidising properties	:	not applicable

9.2. Other information

Critical temperature Tc	:	not applicable
Fat solubility	:	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Carbon dioxide is generated with water or moisture.

10.5. Incompatible materials

Oxidising substances - Acids - alkali - Alcohols - Amines

10.6. Hazardous decomposition products

Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Following ingestion	:	No
Skin contact	:	No
Inhalation	:	Acute inhalation toxicity

Substances	Dose / Concentration	Value	Species	Exposure time	Method
4,4'-METHYLENEDIPHENYL DIISOCYANATE					
oral	LD50:	>2000 mg/kg	Rat		
dermal	LD50:	>9400 mg/kg	Rabbit		
Inhalation (dust/mist)	LC50:	0.431 mg/L	Rat	4 hour(s)	OECD 403
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE					
oral	LD50:	>2000 mg/kg	Rat		OECD 401
dermal	LD50:	>9400 mg/kg	Rabbit		OECD 402
Inhalation (dust/mist)	LC50:	0.49 mg/L	Rat	4 hour(s)	OECD 403
DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES					
oral	LD50:	49000 mg/kg	Rat		
dermal	LD50:	>9400 mg/kg	Rabbit		
Inhalation (dust/mist)	LC50:	0.49 mg/L	Rat	4 hour(s)	
2,2'-METHYLENEDIPHENYL DIISOCYANATE					
oral	LD50:	>5000 mg/kg	Rat		OECD 425
dermal	LD50:	>9400 mg/kg	Rabbit		OECD 402
Inhalation (dust/mist)	LC50:	0.37 mg/L	Rat	4 hour(s)	OECD 403

Mixture	Dose / Concentration	Value	Species	Exposure time	Method
Inhalation (vapour)	ATEmix calculated:	1.5 mg/L	Rat	4 hour(s)	

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/eye irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity : No indications of human germ cell mutagenicity exist.

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : No indications of human reproductive toxicity exist.

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : not applicable

Symptoms

Following inhalation : Irritating feeling. May cause:, sore throat, Cough, Asthmatic complaints, Respiratory complaints

Following skin contact : Irritating feeling. May cause:, redness, pain

After eye contact : Irritating feeling. May cause:, Allergic reactions, Has degreasing effect on the skin.

Following ingestion : Irritating feeling. May cause:, sore throat, Abdominal pain

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

11.2.2. Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Substance name	Acute (short-term) fish toxicity	Acute (short-term) toxicity to crustacea	Acute (short-term) toxicity to algae and cyanobacteria	Toxicity to other aquatic plants/organisms
4,4'-METHYLENEDIPHENYL DIISOCYANATE	LC50: >100 mg/L 96 hour(s) Danio rerio (zebrafish) - Source: ECHA - Method: OECD 203	EC50: 9 mg/L 48 hour(s) Daphnia magna (Big water flea) - Source: ECHA - Method: OECD 202	EC50: >100 mg/L 72 hour(s) Desmodesmus subspicatus - Source: ECHA - Method: OECD 201	
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE	LC50: >1000 mg/L 96 hour(s) Fish - Source: ECHA - Method: OECD 203	EC50: >1000 mg/L 48 hour(s) Daphnia - Source: ECHA - Method: OECD 202	NOEC: 1640 mg/L 72 hour(s) Algae - Source: ECHA - Method: OECD 201	
2,2'-METHYLENEDIPHENYL DIISOCYANATE	LC50: >1000 mg/L 96 hour(s) Fish - Source: ECHA - Method: OECD 203		IC50: >1640 mg/L 72 hour(s) Algae - Source: ECHA - Method: OECD 202	

Substance name	Chronic (long-term) fish toxicity	Chronic (long-term) toxicity to aquatic invertebrate	Chronic (long-term) toxicity to aquatic algae and cyanobacteria	Toxicity to other aquatic plants/organisms
4,4'-METHYLENEDIPHENYL DIISOCYANATE			NOEC: ≥100 mg/L 72 hour(s) Desmodesmus subspicatus - Source: ECHA - Method: OECD 201	

12.2. Persistence and degradability

Biodegradation

4,4'-METHYLENEDIPHENYL DIISOCYANATE : Not readily biodegradable (according to OECD criteria) - Source: ECHA - Method: OECD 301F

2,4'-METHYLENEDIPHENYL DI-ISOCYANATE : none - Source: ECHA - Method: OECD 302C

Chemical oxygen demand (COD) : No information available.

Biochemical oxygen demand : No information available.

BOD5/COD ratio : No information available.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Bioconcentration factor (BCF) : No information available.

Partition coefficient n-octanol/water : No information available.

12.4. Mobility in soil

No information 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. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

12.8. Additional ecotoxicological information

Observe local regulations concerning effluent treatment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Collect the waste separately. The generation of waste should be avoided or minimized wherever possible. Waste disposal should be in accordance with applicable local and/or national legislation. Waste should not be disposed of by release to water, drainage, sewer, or the ground.

Other disposal recommendations : not applicable

SECTION 14: Transport information

14.1. UN number or ID number

No dangerous good in sense of these transport regulations.

14.2. UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4. Packing group

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

No dangerous good in sense of these transport regulations.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

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

International regulations:

Minamata Convention on Mercury : not applicable

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

not applicable

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:

not applicable

Overall Assessment on CMR properties

according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

Regulation (EC) No 850/2004 [POP-Regulation]

not applicable

Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.

not applicable

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Additional information

May contain traces of: Phenyl Isocyanate.

Relevant H-phrases (Number and full text)

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.

Abbreviations and acronyms

ACGIH®	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
BuAc	n-Butyl acetate
CAS	Chemical Abstracts Service
CCID	New Zealand Chemical Classification and Information Database
DSL	Canada Domestic Substances List
ECHA-RAC	ECHA Committee for Risk Assessment
EFSA	European Food Safety Authority
EHSP	OECD Environment, Health, and Safety Publication
EmS	Emergency Schedule
EU-CLH	European Union Harmonised Classification and Labelling
GESTIS	Databases on hazardous substances of the German Social Accident Insurance
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GWBB-VLEP	Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle
HHS	U.S. Department of Health and Human Services
HSDB	Hazardous Substances Data Bank
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INRS	French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases
JP-GHS	Japan GHS Basis for Classification Data
KHC	Known human carcinogens.
LEL	Lower explosion limit
LOLI	LOLI (List of Lists) Database
n.a.	not applicable
NDSL	Canada Non-domestic Substance List
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme
NIER	South Korea National Institute of Environmental Research Evaluations
NLM	United States National Library of Medicine
NTP	National Toxicology Program
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
OSHA	Occupational Safety & Health Administration
OUE	European Odour Unit
RAHC	Reasonably Anticipated Human Carcinogen
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCOEL	Scientific Committee on Occupational Exposure Limits (EU)
SIDS	OECD Screening Information Data Sets
SUVA	Swiss Accident Insurance Fund
TRGS	Technische Regeln für Gefahrstoffe
TSCA	The Toxic Substances Control Act Chemical Substance Inventory
TWA	Time Weighted Average
UEL	Upper explosion limit
UN	United Nations
US-EPA	United States Environmental Protection Agency

Disclaimer: The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Philips Electronics Nederland B.V. makes no warranty as to its contents, nor as to its fitness for any particular purpose or use.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date last verification : 2021-12-14
Revision date : 2021-12-14
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Version : 2.0

Indication of changes : §**1.2** - §**2.2** - §**4.1** - §**4.2** - §**5.1** - §**5.2** - §**5.3** - §**6.1** - §**7.1** - §**8.2** - §**9.1** - §**11.1**

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

1.1. Product identifier

Safety Data Sheet : 33573

Product name: : CLEANING TISSUES WET

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

Relevant identified uses : Presaturated wipes

Uses advised against : No information available.

1.3. Details of the supplier of the safety data sheet

Supplier : LOVINK ENERTECH B.V.

Postbus 111
7060 AC Terborg
The Netherlands

Telephone : +31 315 335600

Responsible for the compilation of the SDS on behalf of the supplier/ manufacturer : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)497-598315

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

This article doesn't contain hazardous substances or mixtures intended to be released under normal or reasonably foreseeable conditions of use.

2.2. Label elements

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

none

Remarks on labelling : As an article, this product presents negligible health and physical hazards under reasonably anticipated conditions of use. Accordingly, a Safety Data Sheet (SDS) is not required for this product under the standards cited above. This document is prepared as a courtesy to provide persons using this product with additional safety and regulatory information.

2.3. Other hazards

No information available.

SECTION 3: Composition / information on ingredients

3.2. Mixture

Substance name	CAS No.	EC No.	REACH No.	Concentration (%)	Classification according to Regulation (EC) No 1272/2008 [CLP]
HYDROCARBONS, C11-C13, ISOALKANES, <2% AROMATICS	246538-78-3	920-901-0	01-2119456810-40	>15.0 - <18.0	GHS08 H304 Asp. Tox. 1 EUH066
HYDROCARBONS, C11-C12, ISOALKANES, <2% AROMATICS (H226)	246538-76-1	807-661-1		>15.0 - <18.0	GHS02 GHS08 H226 Flam. Liq. 3 H304 Asp. Tox. 1 EUH066

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information : No special measures are necessary.

Following inhalation : No special measures are necessary.
Following skin contact : No special measures are necessary. In case of skin irritation, consult a physician.
After eye contact : No special measures are necessary. When in doubt or if symptoms are observed, get medical advice.
Following ingestion : No special measures are necessary.

Self-protection of the first aider : First aider: Pay attention to self-protection!

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

Adverse human health effects and symptoms / Organs affected:

not applicable

Following inhalation : not applicable

Following skin contact : not applicable

After eye contact : not applicable

Following ingestion : not applicable

Further information: SECTION 11: Toxicological information

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

Notes for the doctor : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry extinguishing powder. - Foam. - Carbon dioxide (CO2).

Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated : Carbon monoxide - Carbon dioxide (CO2)

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Flame-retardant protective clothing. (EN 469)

5.4. Additional information

Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protection equipment.

6.1.1. For non-emergency personnel

Protective equipment : Personal protection equipment: see section 8.

Emergency procedures : not applicable.

6.1.2. For emergency responders

Personal protection equipment : Personal protection equipment: see section 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

not applicable.

6.3.2. For cleaning up

not applicable.

6.3.3. Other information

not determined

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling : No special handling advices are necessary.
Measures to prevent fire : The product is not:Flammable.No special fire protection measures are necessary.
Measures to prevent aerosol and dust generation : Not dust explosive.
Environmental precautions : Avoid release to the environment.

Advices on general occupational hygiene : When using do not eat, drink, smoke, sniff.Take off contaminated clothing.Wash hands before breaks and after work.

Further information : No information available.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions : Special precautions for user: none.
storage temperature : No information available.
Requirements for storage rooms and vessels : No information available.
Storage class : No information available.
Materials to avoid : No information available.
Further information on storage conditions : No information available.

7.3. Specific end use(s)

Recommendation : not applicable
Industrial sector specific solutions : No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

		Germany					
Substance name	Limit value	mg/m³	ppm				
HYDROCARBONS, C11-C13, ISOALKANES, <2% AROMATICS		(C9-C14-aliphatic hydrocarbons)					
	8 hour(s)	300					
	15 minutes	600					
	C						

Source : SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, LOLI DB, 2000/39/EC, GWBB/VLEP, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), TRGS 905, TRGS 910, Austrian OEL Regulation, Dutch Social-Economic Council (SER), US OSHA, EU OSHA, TRGS 900, ACGIH®, 2009/161/EU

20 °C, 1013 mbar: European Union / China / South Korea
25 °C, 1013 mbar: United States / Canada / Japan

[x]: appraisal period x minutes
C: peak limitation
H: skin resorptive
S: Statutory threshold limit value
ALARA: As low as reasonably achievable (ALARA principle).

Remark Occupational exposure limit values

none

DNEL (Derived No Effect Level (DNEL-value))

No information available.

PNEC (Predicted No Effect Concentration (PNEC-value))

No information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Safe handling: see section 7 Technical measures and the application of suitable work processes have priority over personal protection equipment.

8.2.2. Personal protection equipment

Eye/face protection : Eye protection: not required.

Skin protection

Hand protection : Hand protection is not required.

Body protection : Body protection: not required.

Respiratory protection : Usually no personal respirative protection necessary.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

8.3. Additional information

No further relevant information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : not applicable
Appearance : tissue, wetted product
Colour : colourless
Odour : odourless
Odour threshold : No information available.
pH : not applicable
Melting point/freezing point : <-25 °C
Initial boiling point and boiling range : not applicable
Flash point : No information available.
Evaporation rate : not applicable
flammability : No information available.
Upper/lower flammability or explosive limits
Upper explosion limit : not applicable
Lower explosion limit : not applicable
Vapour pressure : not applicable
Vapour density : not applicable
Relative density : not applicable
Solubility(ies)
Water : not applicable

Partition coefficient n-octanol/water : No information available.

Auto-ignition temperature : not applicable
Decomposition temperature : No information available.
Viscosity : 1.32 mPa•s (40 °C)
Explosive properties: : not applicable
Oxidising properties : not applicable

9.2. Other information

Critical temperature Tc : not applicable
Fat solubility : not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Stable under recommended storage and handling conditions.

10.5. Incompatible materials

Oxidising substances

10.6. Hazardous decomposition products

No known hazardous decomposition products.

10.7. Additional information

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Following ingestion : No
Skin contact : No
Inhalation : No

Substances	Dose / Concentration	Value	Species	Exposure time	Method
HYDROCARBONS, C11-C13, ISOALKANES, <2% AROMATICS					
oral	LD50:	>5000 mg/kg	Rat		OECD 401
dermal	LD50:	>5000 mg/kg	Rabbit		OECD 402

Skin corrosion/irritation : not applicable

Serious eye damage/eye irritation : not applicable

Respiratory or skin sensitisation : not applicable

Germ cell mutagenicity : not applicable

Carcinogenicity : not applicable

Reproductive toxicity : not applicable

STOT-single exposure : not applicable

STOT-repeated exposure : not applicable

Aspiration hazard : not applicable

Symptoms

Following inhalation : not applicable

Following skin contact : not applicable

After eye contact : not applicable

Following ingestion : not applicable

SECTION 12: Ecological information

12.1. Toxicity

Substance name	Acute (short-term) fish toxicity	Acute (short-term) toxicity to crustacea	Acute (short-term) toxicity to algae and cyanobacteria	Toxicity to other aquatic plants/organisms
HYDROCARBONS, C11-C13, ISOALKANES, <2% AROMATICS	LC50: >1000 mg/L 96 hour(s) Fish - Source: ECHA - Method: OECD 203	EC50: >1000 mg/L 48 hour(s) Daphnia - Source: ECHA - Method: OECD 202	IC50: >1000 mg/L 72 hour(s) Algae - Source: ECHA - Method: OECD 201	
HYDROCARBONS, C11-C12, ISOALKANES, <2% AROMATICS (H226)	LC50: 1000 mg/L 96 hour(s) Fish - Source: Supplier	EC50: 1000 mg/L 48 hour(s) Daphnia - Source: Supplier	IC50: 1000 mg/L 72 hour(s) Algae - Source: Supplier	

12.2. Persistence and degradability

Biodegradation : No information available.

Chemical oyxgen demand (COD) : No information available.

Biochemical oxygen demand : No information available.

BOD5/COD ratio : No information available.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Bioconcentration factor (BCF) : No information available.

Partition coefficient n-octanol/water : No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Other adverse effects

No information available.

12.7. Additional ecotoxicological information

Observe local regulations concerning effluent treatment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of contents/container to industrial incineration plant. Following consultation with waste management company and after physico-chemical pre-treatment, landfill together with household waste.

Other disposal recommendations : not applicable

SECTION 14: Transport information

14.1. UN number

No dangerous good in sense of these transport regulations.

14.2. UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4. Packing group

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

No dangerous good in sense of these transport regulations.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

SECTION 15: Regulatory information

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

International regulations:

Minamata Convention on Mercury : not applicable

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

not applicable

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:

not applicable

Overall Assessment on CMR properties

according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

Regulation (EC) No 850/2004 [POP-Regulation]

not applicable

Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.

not applicable

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Additional information

none

Relevant H-phrases (Number and full text)

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
EUH066	Repeated exposure may cause skin dryness or cracking.

Abbreviations and acronyms

ACGIH®	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
BuAc	n-Butyl acetate
CAS	Chemical Abstracts Service
CCID	New Zealand Chemical Classification and Information Database
DSL	Canada Domestic Substances List
ECHA-RAC	ECHA Committee for Risk Assessment
EFSA	European Food Safety Authority
EHSP	OECD Environment, Health, and Safety Publication
EmS	Emergency Schedule
EU-CLH	European Union Harmonised Classification and Labelling
GESTIS	Databases on hazardous substances of the German Social Accident Insurance
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GWBB-VLEP	Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle
HHS	U.S. Department of Health and Human Services
HSDB	Hazardous Substances Data Bank
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INRS	French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases
JP-GHS	Japan GHS Basis for Classification Data
KHC	Known human carcinogens.
LEL	Lower explosion limit

LOLI	LOLI (List of Lists) Database
n.a.	not applicable
NDSL	Canada Non-domestic Substance List
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme
NIER	South Korea National Institute of Environmental Research Evaluations
NLM	United States National Library of Medicine
NTP	National Toxicology Program
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
OSHA	Occupational Safety & Health Administration
OUE	European Odour Unit
RAHC	Reasonably Anticipated Human Carcinogen
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCOEL	Scientific Committee on Occupational Exposure Limits (EU)
SIDS	OECD Screening Information Data Sets
SUVA	Swiss Accident Insurance Fund
TRGS	Technische Regeln für Gefahrstoffe
TSCA	The Toxic Substances Control Act Chemical Substance Inventory
TWA	Time Weighted Average
UEL	Upper explosion limit
UN	United Nations
US-EPA	United States Environmental Protection Agency

Disclaimer: The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Philips Electronics Nederland B.V. makes no warranty as to its contents, nor as to its fitness for any particular purpose or use.

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Authoring date: 13-Oct-2023
Revision date: 13-Oct-2023

Revision Number: 4

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

1.1. Product identifier

Safety data sheet number 40281

Product Name **LOVINK SILICONE PASTE**

Other means of identification

Pure substance/mixture Mixture

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

Recommended use No information available

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

supplier
LOVINK ENERTECH B.V.
Postbus 111
7060 AC Terborg
The Netherlands
Tel.: +31 315 335600

For further information, please contact

E-Mail address hazcom@philips.com

1.4. Emergency telephone number

Emergency Telephone +31 497 598315(EMERG)

Emergency Telephone - §45 - (EC)1272/2008	
Europe	**112**

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Hazard statements
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
EUH210 - Safety data sheet available on request

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
POLYDIMETHYLSILOXANES -	0	No data available	-	No data available	-	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
No information available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Ingestion Rinse mouth.

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

Symptoms No information available.

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

Note to physicians Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Maximum storage temperature. < 50.

Storage class (TRGS 510) Storage class 10

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Paste
Color	transparent colorless white
Odor	Odorless.
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
Melting point / freezing point	No data available	None known

Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	> 300 °C	None known
Autoignition temperature	No data available	None known
Decomposition temperature	> 150 °C	None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	practically insoluble
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	0.950	@ 20 °C
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid No information available.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (oral) 3,163.20 mg/kg

Component Information

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Method	Species	Exposure route	Results
			Not applicable

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability

Persistence and degradability No information available.

Chemical name	Code	Method	Reference sources
POLYDIMETHYLSILOXANES	No information available.	not traceable	not traceable

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number	none
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user Special Provisions	None

SECTION 15: Regulatory information

National regulations

Germany

Water hazard class (WGK) non-hazardous to water (nwg)

Netherlands

Water contaminating class (Netherlands)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
TCSI	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substance Inventory
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend
SVHC: Substances of Very High Concern for Authorization

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitizers		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 13-Oct-2023

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date last verification	: 2021-12-14	**Version :** 8.1
Revision date	: 2020-01-17	
Issue date	: 2003-01-28	

Indication of changes : §**5.2** - §**6.1** - §**7.1** - §**7.2** - §**7.3** - §**9.1**

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

1.1. Product identifier

Safety Data Sheet : 20810

Product name: : LOVISIL

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

Relevant identified uses : No information available.

Uses advised against : No information available.

1.3. Details of the supplier of the safety data sheet

Supplier : LOVINK ENERTECH B.V.

Postbus 111
7060 AC Terborg
The Netherlands

Telephone : +31 315 335600

Responsible for the compilation of the SDS on behalf of the supplier/ manufacturer : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)497-598315

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

2.2. Label elements

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

none

Remarks on labelling none.

2.3. Other hazards

No information available.

SECTION 3: Composition / information on ingredients

3.2. Mixture

Substance name	CAS No.	EC No.	REACH No.	Concentration (%)	Classification according to Regulation (EC) No 1272/2008 [CLP]
2-PENTANONE, O,O',O''-(ETHENYLSILYLIDYNE)TRIOXIME	58190-62-8	700-810-0	01-2120006148-66	≥1.0 - <5.0	GHS07 GHS08 H302 Acute Tox. 4 H319 Eye Irrit. 2 H373 STOT RE 2
POLYDIMETHYLSILOXANES					

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information : When in doubt or if symptoms are observed, get medical advice.

Following inhalation : Provide fresh air.
Following skin contact : After contact with skin, wash immediately with plenty of water and soap.
After eye contact : Rinse immediately carefully and thoroughly with eye-bath or water.
Following ingestion : Rinse mouth thoroughly with water. Give nothing to eat or drink.

Self-protection of the first aider : First aider: Pay attention to self-protection!

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

Adverse human health effects and symptoms / Organs affected:

Under normal conditions of use no symptoms and effects are to be expected. However, deviation of the intended use may result in the following symptoms dependent on the route of exposure:

Following inhalation : Prickling sensation. May cause:, sore throat

Following skin contact : Prickling sensation. May cause:, redness, Has degreasing effect on the skin.

After eye contact : Prickling sensation. May cause:, redness

Following ingestion : Prickling sensation. May cause:, sore throat

Further information: SECTION 11: Toxicological information

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

Notes for the doctor : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Fire class B: - Dry extinguishing powder. - Foam. - Carbon dioxide (CO_2).

Unsuitable extinguishing media : Wet chemical. - Water.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Formaldehyde

In case of fire may be liberated : Carbon monoxide - Carbon dioxide (CO_2) - Silicon dioxide (SiO_2)

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Flame-retardant protective clothing. (EN 469)

5.4. Additional information

Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protection equipment.

6.1.1. For non-emergency personnel

Protective equipment : Personal protection equipment: see section 8.

Emergency procedures : Remove all sources of ignition. Provide adequate ventilation. Remove persons to safety.

6.1.2. For emergency responders

Personal protection equipment : Personal protection equipment: see section 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

6.3.2. For cleaning up

Collect in closed and suitable containers for disposal. Clean contaminated articles and floor according to the environmental legislation.

6.3.3. Other information

not determined

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling	: Wear personal protection equipment (refer to section 8).
Measures to prevent fire	: The product is not:Flammable.Usual measures for fire prevention.
Measures to prevent aerosol and dust generation	: Provide adequate ventilation as well as local exhaustion at critical locations.
Environmental precautions	: Avoid release to the environment.
Advices on general occupational hygiene	: When using do not eat, drink, smoke, sniff.Take off contaminated clothing.Wash hands before breaks and after work.
Further information	: No information available.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions	: Store in a closed container. - Keep only in the original container in a cool, well-ventilated place. - Store in a dry place.
storage temperature	: No information available.
Requirements for storage rooms and vessels	: No information available.
Storage class	: No information available.
Materials to avoid	: No information available.
Further information on storage conditions	: No information available.

7.3. Specific end use(s)

Recommendation	: Observe instructions for use.
Industrial sector specific solutions	: No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

Does not contain substances above concentration limits fixing an occupational exposure limit.

Source : SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, LOLI DB, 2000/39/EC, GWBB/VLEP, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), TRGS 905, TRGS 910, Austrian OEL Regulation, Dutch Social-Economic Council (SER), US OSHA, EU OSHA, TRGS 900, ACGIH®, 2009/161/EU

20 °C, 1013 mbar: European Union / China / South Korea
25 °C, 1013 mbar: United States / Canada / Japan
[x]: appraisal period x minutes
C: peak limitation
H: skin resorptive
S: Statutory threshold limit value
ALARA: As low as reasonably achievable (ALARA principle).

Remark Occupational exposure limit values

none

DNEL (Derived No Effect Level (DNEL-value))

		DNEL worker			
		systemic		local	
Substance name	**Exposure route**	**long-term**	**short-term**	**long-term**	**short-term**
2-PENTANONE, O,O',O''-(ETHENYLSILYLIDYNE) TRIOXIME	oral [mg/kg bw/day]	Not required.			
	Inhalation [mg/m³] 10	0.229			
	dermal [mg/kg bw/day]	0.065			

PNEC (Predicted No Effect Concentration (PNEC-value))

Substance name	aquatic, freshwater [mg/L]	aquatic, marine water [mg/L]	aquatic, intermittent release [mg/L]	sewage treatment plant [mg/L]	sediment, freshwater [mg/kg sediment dw]	sediment, marine water [mg/kg sediment dw]	soil [mg/kg soil dw]
2-PENTANONE, O,O',O''-(ETHENYLSILYLIDYNE) TRIOXIME	0.103	0.01		2.22	0.586	0.059	0.046

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Safe handling: see section 7 Technical measures and the application of suitable work processes have priority over personal protection equipment.

8.2.2. Personal protection equipment

Eye/face protection : Suitable eye protection: Eye glasses with side protection. DIN-/EN-Norms DIN EN 166.

Skin protection

Hand protection : Suitable material: Butyl caoutchouc (butyl rubber). NBR (Nitrile rubber).

Body protection : Only wear fitting, comfortable and clean protective clothing. Suitable protective clothing: lab coat. Chemical resistant safety shoes.

Respiratory protection : If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Use only respiratory protection equipment with CE-symbol including four digit test number. Suitable respiratory protection apparatus: Filter type: A.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

8.3. Additional information

No further relevant information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid, viscous
Colour : colourless
Odour : characteristic
Odour threshold : No information available.
pH : not applicable
Melting point/freezing point : No information available.
Initial boiling point and boiling range : No information available.
Flash point : No information available.
Evaporation rate : No information available.
flammability : No information available.
Upper/lower flammability or explosive limits
Upper explosion limit : No information available.
Lower explosion limit : No information available.
Vapour pressure : No information available.
Vapour density : No information available.
Relative density : No information available.
Solubility(ies)
Water : practically insoluble

Partition coefficient n-octanol/water
2-PENTANONE, O,O',O''-(ETHENYLSILYLIDYNE) TRIOXIME : 1.25 - Source: ECHA - Method: OECD 117

Auto-ignition temperature : No information available.

Decomposition temperature : No information available.
Viscosity : 10.4 Pa•s (20 °C)
Explosive properties: : not applicable
Oxidising properties : not applicable

9.2. Other information

Critical temperature Tc : not applicable
Fat solubility : No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Stable under recommended storage and handling conditions.

10.5. Incompatible materials

Oxidising substances

10.6. Hazardous decomposition products

ethyl methyl ketoxime - Decomposition products in case of fire: see section 5.

10.7. Additional information

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Following ingestion : No
Skin contact : No
Inhalation : No

Substances	Dose / Concentration	Value	Species	Exposure time	Method
2-PENTANONE, O,O',O''-(ETHENYLSILYLIDYNE)TRIOXIME					
oral	LD50:	>1000 - <2000 mg/kg	Rat		
dermal	LD50:	>2000 mg/kg	Rat		

Skin corrosion/irritation : not applicable

Serious eye damage/eye irritation : not applicable

Respiratory or skin sensitisation : not applicable

Germ cell mutagenicity : No indications of human germ cell mutagenicity exist.

Carcinogenicity : No indication of human carcinogenicity.

Reproductive toxicity : No indications of human reproductive toxicity exist.

STOT-single exposure : not applicable

STOT-repeated exposure : not applicable

Aspiration hazard : not applicable

Symptoms

Following inhalation : Prickling sensation. May cause:, sore throat

Following skin contact : Prickling sensation. May cause:, redness, Has degreasing effect on the skin.

After eye contact : Prickling sensation. May cause:, redness

Following ingestion : Prickling sensation. May cause:, sore throat

SECTION 12: Ecological information

12.1. Toxicity

No information available.

Substance name	Acute (short-term) fish toxicity	Acute (short-term) toxicity to crustacea	Acute (short-term) toxicity to algae and cyanobacteria	Toxicity to other aquatic plants/organisms
2-PENTANONE, O,O',O''-(ETHENYLSILYLIDYNE) TRIOXIME	LC50: >100 mg/L 96 hour(s) Fish - Source: ECHA - Method: OECD 203	EC50: >100 mg/L 48 hour(s) Daphnia - Source: ECHA - Method: OECD 202	IC50: 50 mg/L 72 hour(s) Algae - Source: ECHA - Method: OECD 201	

12.2. Persistence and degradability

Biodegradation
2-PENTANONE, O,O',O''-(ETHENYLSILYLIDYNE) TRIOXIME : none - Source: ECHA - Method: OECD 301B

Chemical oyxgen demand (COD) : No information available.

Biochemical oxygen demand : No information available.

BOD5/COD ratio : No information available.

12.3. Bioaccumulative potential

Bioconcentration factor (BCF)
2-PENTANONE, O,O',O''-(ETHENYLSILYLIDYNE) TRIOXIME : 69.21 - Source: ECHA

Partition coefficient n-octanol/water
2-PENTANONE, O,O',O''-(ETHENYLSILYLIDYNE) TRIOXIME : 1.25 - Source: ECHA - Method: OECD 117

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available.

12.7. Additional ecotoxicological information

Observe local regulations concerning effluent treatment. The viscous consistency of the product can lead to problems in transport pipes and sewage plants.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No hazards to sources of water are to be feared if released into water, drainage, sewer, or the ground.

Other disposal recommendations : not applicable

SECTION 14: Transport information

14.1. UN number

No dangerous good in sense of these transport regulations.

14.2. UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4. Packing group

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

No dangerous good in sense of these transport regulations.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

SECTION 15: Regulatory information

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

International regulations:

Minamata Convention on Mercury : not applicable

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

not applicable

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:

not applicable

Overall Assessment on CMR properties

according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

Regulation (EC) No 850/2004 [POP-Regulation]

not applicable

Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.

not applicable

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Additional information

none

Relevant H-phrases (Number and full text)

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms

ACGIH®	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
BuAc	n-Butyl acetate
CAS	Chemical Abstracts Service
CCID	New Zealand Chemical Classification and Information Database
DSL	Canada Domestic Substances List
ECHA-RAC	ECHA Committee for Risk Assessment
EFSA	European Food Safety Authority
EHSP	OECD Environment, Health, and Safety Publication
EmS	Emergency Schedule
EU-CLH	European Union Harmonised Classification and Labelling
GESTIS	Databases on hazardous substances of the German Social Accident Insurance
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GWBB-VLEP	Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle
HHS	U.S. Department of Health and Human Services
HSDB	Hazardous Substances Data Bank
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association

ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INRS	French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases
JP-GHS	Japan GHS Basis for Classification Data
KHC	Known human carcinogens.
LEL	Lower explosion limit
LOLI	LOLI (List of Lists) Database
n.a.	not applicable
NDSL	Canada Non-domestic Substance List
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme
NIER	South Korea National Institute of Environmental Research Evaluations
NLM	United States National Library of Medicine
NTP	National Toxicology Program
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
OSHA	Occupational Safety & Health Administration
OUE	European Odour Unit
RAHC	Reasonably Anticipated Human Carcinogen
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCOEL	Scientific Committee on Occupational Exposure Limits (EU)
SIDS	OECD Screening Information Data Sets
SUVA	Swiss Accident Insurance Fund
TRGS	Technische Regeln für Gefahrstoffe
TSCA	The Toxic Substances Control Act Chemical Substance Inventory
TWA	Time Weighted Average
UEL	Upper explosion limit
UN	United Nations
US-EPA	United States Environmental Protection Agency

Disclaimer: The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Philips Electronics Nederland B.V. makes no warranty as to its contents, nor as to its fitness for any particular purpose or use.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

Date last verification : 2023-03-15
Revision date : 2021-12-14
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Version : 10.1

Indication of changes : §**1.2** - §**2.2** - §**2.3** - §**4.1** - §**4.2** - §**5.1** - §**6.1** - §**6.2** - §**7.1** - §**8.1** - §**8.2** - §**10.4** - §**10.5** - §**10.6** - §**11.1** - §**13.1**

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

1.1. Product identifier

Safety Data Sheet : 24742

Product name: : LOFIT EN LOFIT IT HARDER

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

Relevant identified uses : Hardener

Uses advised against : No information available.

1.3. Details of the supplier of the safety data sheet

Supplier : LOVINK ENERTECH B.V.

Postbus 111
7060 AC Terborg
The Netherlands

Telephone : +31 315 335600

Responsible for the compilation of the SDS on behalf of the supplier/ manufacturer : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)497-598315

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation	Category 2	H315
Respiratory or skin sensitisation	Category 1	H317
Serious eye damage/eye irritation	Category 2	H319
Acute toxicity, Inhalation	Category 4	H332
Respiratory or skin sensitisation	Category 1	H334
Specific target organ toxicity - single exposure	Category 3	H335
Carcinogenicity	Category 2	H351
Specific target organ toxicity - repeated exposure	Category 2	H373

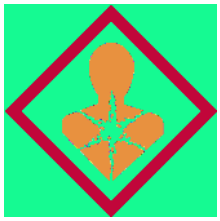
2.1.2. Additional information

Full text of H- and EUH-statements: see section 16.

2.2. Label elements

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

Hazard pictograms



Signal word : Danger !

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH204	Contains isocyanates. May produce an allergic reaction.

Precautionary statements

P201	Obtain special instructions before use.
P260.2	Do not breathe mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280.5	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container according to local hazardous waste disposal regulations.

Hazardous ingredients 4,4'-METHYLENEDIPHENYL DIISOCYANATE
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE
DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES
2,2'-METHYLENEDIPHENYL DIISOCYANATE

Remarks on labelling As from 24 August 2023 adequate training is required before industrial or professional use.

2.3. Other hazards

Special danger of slipping by leaking/spilling product.
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition / information on ingredients

3.2. Mixture

CAS No.	EC No.	REACH No.	Concentration (%)	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL / M-factor / ATE
4,4'-METHYLENEDIPHENYL DIISOCYANATE					
101-68-8	202-966-0	01-2119457014-47	≥50.0 - <75.0	GHS07 GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2 EUH204	STOT SE 3; H335; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % Skin Irrit. 2; H315; C: ≥5 % Eye Irrit. 2; H319; C: ≥5 %
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE					
5873-54-1	227-534-9	01-2119480143-45	≥25.0 - <50.0	GHS07	Eye Irrit. 2; H319; C: ≥5 %

CAS No.	EC No.	REACH No.	Concentration (%)	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL / M-factor / ATE
				GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2	Skin Irrit. 2; H315; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % STOT SE 3; H335; C: ≥5 %
DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES					
9016-87-9	905-804-3		≥10.0 - <20.0	GHS07 GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2	Eye Irrit. 2; H319; C: ≥5 % Skin Irrit. 2; H315; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % STOT SE 3; H335; C: ≥5 %
2,2'-METHYLENEDIPHENYL DIISOCYANATE					
2536-05-2	219-799-4	01-2119927323-43	≥3.0 - <5.0	GHS07 GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2 EUH204	Eye Irrit. 2; H319; C: ≥5 % Skin Irrit. 2; H315; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % STOT SE 3; H335; C: ≥5 %

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information : Remove casualty to fresh air and keep warm and at rest. Transport affected person in lying position, in case of shortness of breath in half-sitting position. Remove contaminated, saturated clothing immediately. Wear personal protection equipment (refer to section 8). Remove affected person from the danger area and lay down. Do not leave affected person unattended. Never give anything by mouth to an unconscious person or a person with cramps. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Following inhalation : In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

Following skin contact : Rinse cautiously with water for several minutes. Call a doctor.

After eye contact : Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

Following ingestion : Rinse mouth thoroughly with water. Give nothing to eat or drink. Never give anything by mouth to an unconscious person or a person with cramps. Immediately call a doctor.

Self-protection of the first aider : First aider: Pay attention to self-protection!

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

Adverse human health effects and symptoms / Organs affected:

Organs affected:, lung, Take into account the (potential) effects of a hydrolysis or decomposition reaction or a reaction with water.

Following inhalation : Irritating feeling. May cause:, sore throat, Cough, Asthmatic complaints, Respiratory complaints

Following skin contact : Irritating feeling. May cause:, redness, pain

After eye contact : Irritating feeling. May cause:, Allergic reactions, Has degreasing effect on the skin.

Following ingestion : Irritating feeling. May cause:, sore throat, Abdominal pain

Further information: SECTION 11: Toxicological information

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

Notes for the doctor : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Fire class B: - Carbon dioxide (CO2). - Foam. - Dry extinguishing powder.

Unsuitable extinguishing media : Wet chemical. - Water.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated : Nitrogen oxides (NOx) - Hydrogen cyanide (hydrocyanic acid) - isocyanate vapours

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing. (EN 469)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protection equipment. Special danger of slipping by leaking/spilling product.

6.1.1. For non-emergency personnel

Protective equipment : Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Emergency procedures : Health hazard. See section 6 and 4 of the safety data sheet. Health hazard! Evacuate area.

6.1.2. For emergency responders

Personal protection equipment : Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2. Environmental precautions

Collect spillage. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Do not allow to enter into soil/subsoil. Ensure waste is collected and contained.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

6.3.2. For cleaning up

Collect in closed and suitable containers for disposal. Clean contaminated articles and floor according to the environmental legislation.

6.3.3. Other information

not determined

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures : Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used.

Advices on safe handling : Do not breathe gas/fumes/vapour/spray.Avoid exposure - obtain special instructions before use.Do not get in eyes, on skin, or on clothing.Provide adequate ventilation as well as local exhaustion at critical locations. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Measures to prevent fire : The product is not:Flammable.No special fire protection measures are necessary.

Measures to prevent aerosol and dust generation : Use only in well-ventilated areas.Provide adequate ventilation as well as local exhaustion at critical locations.

Environmental precautions : Avoid release to the environment.

Advices on general occupational hygiene : When using do not eat, drink, smoke, sniff.Take off contaminated clothing.Wash hands before breaks and after work.

Further information : No information available.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions : Store in a closed container. - Store in a well-ventilated place. - Keep container dry.

storage temperature : No information available.

Requirements for storage rooms and vessels : No information available.

Storage class : No information available.

Materials to avoid : No information available.

Further information on storage conditions : No information available.

7.3. Specific end use(s)

Recommendation : not applicable

Industrial sector specific solutions : No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

		The Netherlands		Germany		France		Austria	
Substance name	Limit value			mg/m³	ppm	mg/m³	ppm	mg/m³	ppm
4,4'-METHYLENEDIPHENYL DIISOCYANATE					H				
	8 hour(s)					0.1		0.05	
	15 minutes					0.2[5]		0.1[5]	0.01[5]
	C			0.05					
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE	8 hour(s)			0.05				0.05	0.005
	15 minutes							0.1[5]	0.01[5]
	C			0.1					
DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES				(MDI, inhalable dust)					
	8 hour(s)			0.05					
	15 minutes			0.05					
	C			0.1					
2,2'-METHYLENEDIPHENYL DIISOCYANATE		(Cyanides)	H S						
	8 hour(s)	1		0.05				0.05	0.05
	15 minutes	5		0.05				0.1[5]	0.01[5]
	C			0.10					

		Belgium		Switzerland		China		Spain	
Substance name	Limit value	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm
4,4'-METHYLENEDIPHENYL DIISOCYANATE	8 hour(s)	0.052				0.05		0.052	
	15 minutes			0.02		0.1			
	C								
2,2'-METHYLENEDIPHENYL DIISOCYANATE				(Isocyanates)		(Cyanides)	H		
	8 hour(s)			0.02		1			
	15 minutes								
	C			0.02					

		Norway		Poland		Portugal		Russia	
Substance name	Limit value	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm
4,4'-METHYLENEDIPHENYL DIISOCYANATE									H
	8 hour(s)		0.005	0.03			0.005	0.5	
	15 minutes		0.01	0.09					
	C								
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE	8 hour(s)			0.03					
	15 minutes			0.09					
	C								
2,2'-METHYLENEDIPHENYL DIISOCYANATE	8 hour(s)			0.03					
	15 minutes			0.09					
	C								

		Sweden							
Substance name	Limit value	mg/m³	ppm						
4,4'-METHYLENEDIPHENYL DIISOCYANATE	8 hour(s)	0.03							
	15 minutes	0.05[5]							
	C								
2,2'-METHYLENEDIPHENYL DIISOCYANATE	8 hour(s)	0.03							
	15 minutes								
	C	0.05							

Source : SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, LOLI DB, 2000/39/EC, GWBB/VLEP, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), TRGS 905, TRGS 910, Austrian OEL Regulation, Dutch Social-Economic Council (SER), US OSHA, EU OSHA, TRGS 900, ACGIH®, 2009/161/EU

20 °C, 1013 mbar: European Union / China / South Korea
25 °C, 1013 mbar: United States / Canada / Japan
[x]: appraisal period x minutes
C: peak limitation
H: skin resorptive
S: Statutory threshold limit value
ALARA: As low as reasonably achievable (ALARA principle).

Remark Occupational exposure limit values

Provide adequate ventilation as well as local exhaustion at critical locations.

DNEL (Derived No Effect Level (DNEL-value))

		DNEL worker			
		systemic		local	
Substance name	**Exposure route**	**long-term**	**short-term**	**long-term**	**short-term**
4,4'-METHYLENEDIPHENYL DIISOCYANATE	oral [mg/kg bw/day]	Not required.			
	Inhalation [mg/m³] 00			0.05	0.1
	dermal [mg/kg bw/day]				
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE	oral [mg/kg bw/day]	Not required.			
	Inhalation [mg/m³] 00			0.05	0.1
	dermal [mg/kg bw/day]				
2,2'-METHYLENEDIPHENYL DIISOCYANATE	oral [mg/kg bw/day]	Not required.			
	Inhalation [mg/m³] 00			0.05	0.1
	dermal [mg/kg bw/day]				

PNEC (Predicted No Effect Concentration (PNEC-value))

Substance name	**aquatic, freshwater** [mg/L]	**aquatic, marine water** [mg/L]	**aquatic, intermittent release** [mg/L]	**sewage treatment plant** [mg/L]	**sediment, freshwater** [mg/kg sediment dw]	**sediment, marine water** [mg/kg sediment dw]	**soil** [mg/kg soil dw]
4,4'-METHYLENEDIPHENYL DIISOCYANATE	1	0.1	10	1			1
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE	1	0.1	10	1			1
2,2'-METHYLENEDIPHENYL DIISOCYANATE	1	0.1	10	1			1

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Safe handling: see section 7

8.2.2. Personal protection equipment

Eye/face protection : Suitable eye protection: acid-resistant goggles.

Skin protection

Hand protection : Suitable material: NBR (Nitrile rubber). Butyl caoutchouc (butyl rubber). For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Body protection : Suitable protective clothing: Only wear fitting, comfortable and clean protective clothing. Chemical protection clothing. Protective sleeves. Chemical resistant safety shoes.

Respiratory protection : If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Use only respiratory protection equipment with CE-symbol including four digit test number. Suitable respiratory protection apparatus: Filter type: A.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	No information available.
Colour	:	brown
Odour	:	earthy
Odour threshold	:	No information available.
pH	:	not applicable
Melting point/freezing point	:	-30 °C
Initial boiling point and boiling range	:	>300 °C
Flash point	:	202 °C
Evaporation rate	:	No information available.
flammability	:	No information available.
Upper/lower flammability or explosive limits		
Upper explosion limit	:	No information available.
Lower explosion limit	:	No information available.
Vapour pressure	:	1.2 kPa (20 °C)
Vapour density	:	No information available.
Relative density	:	1.22 (water=1) (20 °C)
Solubility(ies)		
Water	:	not applicable
Partition coefficient n-octanol/water	:	No information available.
Auto-ignition temperature	:	500 °C
Decomposition temperature	:	200 °C
Viscosity	:	26.8 mPa•s (20 °C)
Explosive properties:	:	not applicable
Oxidising properties	:	not applicable

9.2. Other information

Critical temperature Tc	:	not applicable
Fat solubility	:	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Carbon dioxide is generated with water or moisture.

10.5. Incompatible materials

Oxidising substances - Acids - alkali - Alcohols - Amines

10.6. Hazardous decomposition products

Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Following ingestion	:	No
Skin contact	:	No
Inhalation	:	Acute inhalation toxicity

Substances	Dose / Concentration	Value	Species	Exposure time	Method
4,4'-METHYLENEDIPHENYL DIISOCYANATE					
oral	LD50:	>2000 mg/kg	Rat		
dermal	LD50:	>9400 mg/kg	Rabbit		
Inhalation (dust/mist)	LC50:	0.431 mg/L	Rat	4 hour(s)	OECD 403
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE					
oral	LD50:	>2000 mg/kg	Rat		OECD 401
dermal	LD50:	>9400 mg/kg	Rabbit		OECD 402
Inhalation (dust/mist)	LC50:	0.49 mg/L	Rat	4 hour(s)	OECD 403
DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES					
oral	LD50:	49000 mg/kg	Rat		
dermal	LD50:	>9400 mg/kg	Rabbit		
Inhalation (dust/mist)	LC50:	0.49 mg/L	Rat	4 hour(s)	
2,2'-METHYLENEDIPHENYL DIISOCYANATE					
oral	LD50:	>5000 mg/kg	Rat		OECD 425
dermal	LD50:	>9400 mg/kg	Rabbit		OECD 402
Inhalation (dust/mist)	LC50:	0.37 mg/L	Rat	4 hour(s)	OECD 403

Mixture	Dose / Concentration	Value	Species	Exposure time	Method
Inhalation (vapour)	ATEmix calculated:	1.5 mg/L	Rat	4 hour(s)	

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/eye irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity : No indications of human germ cell mutagenicity exist.

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : No indications of human reproductive toxicity exist.

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : not applicable

Symptoms

Following inhalation : Irritating feeling. May cause:, sore throat, Cough, Asthmatic complaints, Respiratory complaints

Following skin contact : Irritating feeling. May cause:, redness, pain

After eye contact : Irritating feeling. May cause:, Allergic reactions, Has degreasing effect on the skin.

Following ingestion : Irritating feeling. May cause:, sore throat, Abdominal pain

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

11.2.2. Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Substance name	Acute (short-term) fish toxicity	Acute (short-term) toxicity to crustacea	Acute (short-term) toxicity to algae and cyanobacteria	Toxicity to other aquatic plants/organisms
4,4'-METHYLENEDIPHENYL DIISOCYANATE	LC50: >100 mg/L 96 hour(s) Danio rerio (zebrafish) - Source: ECHA - Method: OECD 203	EC50: 9 mg/L 48 hour(s) Daphnia magna (Big water flea) - Source: ECHA - Method: OECD 202	EC50: >100 mg/L 72 hour(s) Desmodesmus subspicatus - Source: ECHA - Method: OECD 201	
2,4'-METHYLENEDIPHENYL DI-ISOCYANATE	LC50: >1000 mg/L 96 hour(s) Fish - Source: ECHA - Method: OECD 203	EC50: >1000 mg/L 48 hour(s) Daphnia - Source: ECHA - Method: OECD 202	NOEC: 1640 mg/L 72 hour(s) Algae - Source: ECHA - Method: OECD 201	
2,2'-METHYLENEDIPHENYL DIISOCYANATE	LC50: >1000 mg/L 96 hour(s) Fish - Source: ECHA - Method: OECD 203		IC50: >1640 mg/L 72 hour(s) Algae - Source: ECHA - Method: OECD 202	

Substance name	Chronic (long-term) fish toxicity	Chronic (long-term) toxicity to aquatic invertebrate	Chronic (long-term) toxicity to aquatic algae and cyanobacteria	Toxicity to other aquatic plants/organisms
4,4'-METHYLENEDIPHENYL DIISOCYANATE			NOEC: ≥100 mg/L 72 hour(s) Desmodesmus subspicatus - Source: ECHA - Method: OECD 201	

12.2. Persistence and degradability

Biodegradation

4,4'-METHYLENEDIPHENYL DIISOCYANATE : Not readily biodegradable (according to OECD criteria) - Source: ECHA - Method: OECD 301F

2,4'-METHYLENEDIPHENYL DI-ISOCYANATE : none - Source: ECHA - Method: OECD 302C

Chemical oxygen demand (COD) : No information available.

Biochemical oxygen demand : No information available.

BOD5/COD ratio : No information available.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Bioconcentration factor (BCF) : No information available.

Partition coefficient n-octanol/water : No information available.

12.4. Mobility in soil

No information 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. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

12.8. Additional ecotoxicological information

Observe local regulations concerning effluent treatment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Collect the waste separately. The generation of waste should be avoided or minimized wherever possible. Waste disposal should be in accordance with applicable local and/or national legislation. Waste should not be disposed of by release to water, drainage, sewer, or the ground.

Other disposal recommendations : not applicable

SECTION 14: Transport information

14.1. UN number or ID number

No dangerous good in sense of these transport regulations.

14.2. UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4. Packing group

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

No dangerous good in sense of these transport regulations.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

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

International regulations:

Minamata Convention on Mercury : not applicable

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

not applicable

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:

not applicable

Overall Assessment on CMR properties

according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

Regulation (EC) No 850/2004 [POP-Regulation]

not applicable

Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.

not applicable

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Additional information

May contain traces of: Phenyl Isocyanate.

Relevant H-phrases (Number and full text)

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.

Abbreviations and acronyms

ACGIH®	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
BuAc	n-Butyl acetate
CAS	Chemical Abstracts Service
CCID	New Zealand Chemical Classification and Information Database
DSL	Canada Domestic Substances List
ECHA-RAC	ECHA Committee for Risk Assessment
EFSA	European Food Safety Authority
EHSP	OECD Environment, Health, and Safety Publication
EmS	Emergency Schedule
EU-CLH	European Union Harmonised Classification and Labelling
GESTIS	Databases on hazardous substances of the German Social Accident Insurance
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GWBB-VLEP	Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle
HHS	U.S. Department of Health and Human Services
HSDB	Hazardous Substances Data Bank
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INRS	French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases
JP-GHS	Japan GHS Basis for Classification Data
KHC	Known human carcinogens.
LEL	Lower explosion limit
LOLI	LOLI (List of Lists) Database
n.a.	not applicable
NDSL	Canada Non-domestic Substance List
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme
NIER	South Korea National Institute of Environmental Research Evaluations
NLM	United States National Library of Medicine
NTP	National Toxicology Program
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
OSHA	Occupational Safety & Health Administration
OUE	European Odour Unit
RAHC	Reasonably Anticipated Human Carcinogen
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCOEL	Scientific Committee on Occupational Exposure Limits (EU)
SIDS	OECD Screening Information Data Sets
SUVA	Swiss Accident Insurance Fund
TRGS	Technische Regeln für Gefahrstoffe
TSCA	The Toxic Substances Control Act Chemical Substance Inventory
TWA	Time Weighted Average
UEL	Upper explosion limit
UN	United Nations
US-EPA	United States Environmental Protection Agency

Disclaimer: The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Philips Electronics Nederland B.V. makes no warranty as to its contents, nor as to its fitness for any particular purpose or use.

SAFETY DATA SHEET

According to EC 1907/2006 (REACH)

Date last verification : 2017-05-29
Revision date : 2017-05-29
Publication date : 2015-02-25

Version number : 2.0

Last modifications in sections : 2 - 3

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

1.1. Product identifier

SDS : 20794
Product code :
Supplier : LOVINK ENERTECH B.V.

Postbus 111
7060 AC Terborg
The Netherlands
TEL:+31 315 335600
FAX:+31 315 341547

Tradename : LOFIT EN LOFIT IT HARS

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

General description : RESIN
Use : Various
Uses advised against : Data not available.

1.3. Details of the supplier of the safety data sheet

Supplier safety data sheet : Philips Electronics Nederland B.V., Philips Environment & Safety, High Tech Campus 37, 5656 AE Eindhoven, Tel. +31 (0)40 27 41 645
Responsible department : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number : +31 (0)497-598315

* SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

(EC) No 1272/2008

Not classified.

2.2. Label elements

(EC) No 1272/2008

Label : not applicable

Remarks on labelling none

2.3. Other hazards

If applicable: see section 6.1 and section 7.1.

* SECTION 3: Composition/information on ingredients

Component	CAS-no. / EC-no.	Index No. / Registration no.	Percentage(%)	Label
POLYETHER POLYOL			≥75.0	

For the full text of the H-sentences mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin : Remove residue substance as soon as possible from the skin (f.i. rinse with plenty of water).
Ingestion : If the victim is conscious let him rinse the mouth with water. Do NOT let him drink. In case of general disorders call for a doctor.
Inhalation : Bring the victim into the fresh air as soon as possible, let rest and if necessary call for a doctor.
Eyes : Rinse for a long time with plenty of water. In case of eye-sight disturbances consult a doctor.

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

Skin	local	:	The substance is prickling: redness.
		:	Degreasing: in case of sustained contact a rough, dry skin, eczema.
	general	:	Probably no absorbtion worth mentioning.
Ingestion	local	:	The substance is prickling: sore throat.
	general	:	The substance may be absorbed after ingestion.
Inhalation	local	:	The substance is with atomising prickling: sore throat.
	general	:	Probably no absorbtion worth mentioning.
Eyes	local	:	The substance is prickling: redness.
Remarks symptoms		:	The substance has an effect on: the blood.

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

For advice on further treatment contact a (national) poison center.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable fire-extinguisher

carbon dioxide, extinguishing powder, water spray, alcohol resistant foam

Unsuitable fire-extinguisher

not traceable

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in fire : carbon monoxide

5.3. Advice for firefighters

In the event of fire, wear protective clothing and use breathing apparatus that is independent of the ambient air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Precautions
Use protective equipment. See section 8.

Emergency procedure
Is not to be expected.

6.2. Environmental precautions

Remainder material or uncleaned empty packagings have to be incinerated in a proper installation or dumped on an approved landfill, in accordance with local and national legislation.

6.3. Methods and material for containment and cleaning up

Spillage procedure
Absorb the liquid in appropriate absorbent (e.g. Powersorb, dry sand, diatomite, vermiculite etc.), shovel the mixture into plastic bags and remove to the central depot for hazardous waste.

6.4. Reference to other sections

See section 8 for appropriate personal protection.

See section 13 for additional information on waste treatment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Observe label precautions.
Do not eat, drink or smoke in work areas. Remove contaminated clothing and protective equipment. Wash hands after leaving the work area.

Local exhausting : Under normal circumstances not applicable.

Storage code (on behalf of PGS 15) : none

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : See also any precautionary statements in section 2.2.
Store product dry, in a closed packaging, cool.

7.3. Specific end use(s)

Data not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits :

applicable to: The Netherlands
No TWA has been laid down. POLYETHER POLYOL

C=Ceiling; S=Skin

Remarks exposure limits :
none

DNEL (Derived No Effect Level)
Data not available.

PNEC (Predicted No Effect Concentration)
Data not available.

8.2. Exposure controls

Advised personal protection :

Hands	:	butyl rubber gloves
Breakthrough time	:	For information: consult the supplier of the gloves.
Eyes	:	safety goggles
Inhalation	:	none (when sufficient exhausting)
Skin	:	protective clothing (such as: apron, coverall, boots)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	yellow
Odour	:	amine-like
Odour threshold (20ºC; 1013 mbar)	:	not traceable
pH	:	≥6.5 - ≤8.5
Melting point/range	:	not traceable
Boiling point/range	:	≥200 ºC (1013 mbar)
Flash point/range	:	>110 ºC
Vapor rate/range	:	not traceable
Flammability (solid, gas)	:	data not available
Explosive limits	:	not traceable
Vapour pressure	:	<0.2 kPa (20 ºC)
Relative density	:	1.10 (water=1) (20 ºC)
Solubility in water	:	partial
Log Po/w	:	not traceable
Autoignition temperature	:	>370 ºC
Decomposition temperature	:	not traceable
Viscosity	:	1.0 Pa.s (20 ºC)
Dust explosions possible in air	:	not applicable
Oxidising properties	:	no

9.2. Other information

Solubility in fat	:	not traceable
Electrostatic chargement	:	not traceable

SECTION 10: Stability and reactivity

10.1. Reactivity

See section 10.2 - 10.6.

10.2. Chemical stability

The substance or mixture is stable under normal conditions. See also section 10.4.

10.3. Possibility of hazardous reactions

Reactions with water	:	no
Other hazardous conditions	:	Data not available.

10.4. Conditions to avoid

Data not available.

10.5. Incompatible materials

Hazardous reactions with	:	oxidizing substances

10.6. Hazardous decomposition products

Hazardous decomposition products at heating	:	none

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity
There are no data available.

Acute dermal toxicity
There are no data available.

Acute inhalation toxicity
There are no data available.

Ames test
not traceable

Skin corrosion/irritation
The substance or mixture is not classified for skin corrosion/-irritation.

Serious eye damage/irritation
The substance or mixture is not classified for serious eye damage/irritation.

Respiratory or skin sensitisation
The substance or mixture is not classified for respiratory or skin sensitisation.

Germ cell mutagenicity
The substance or mixture is not classified for germ cell mutagenicity.

Carcinogenicity
The substance or mixture is not classified for carcinogenicity.

Additional information regarding carcinogenicity (NTP, IARC, OSHA)
There are no data available.

Reproductive toxicity
The substance or mixture is not classified for reproductive toxicity.

Specific target organ toxicity-single exposure
The substance or mixture is not classified for specific target organ toxicity-single exposure.

Specific target organ toxicity-repeated exposure
The substance or mixture is not classified for specific target organ toxicity-repeated exposure.

Aspiration hazard
The substance or mixture is not classified for aspiration hazard.

Symptoms

Skin	local	:	The substance is prickling: redness.
		:	Degreasing: in case of sustained contact a rough, dry skin, eczema.
	general	:	Probably no absorbtion worth mentioning.
Ingestion	local	:	The substance is prickling: sore throat.
	general	:	The substance may be absorbed after ingestion.

Inhalation	local	:	The substance is with atomising prickling: sore throat.
	general	:	Probably no absorbtion worth mentioning.
Eyes	local	:	The substance is prickling: redness.
Remarks symptoms		:	The substance has an effect on: the blood.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity
not traceable

12.2. Persistence and degradability

Biological oxygen demand	:	not traceable
Chemical oxygen demand	:	not traceable
Biological/chemical oxygen demand ratio	:	not traceable
Degradability	:	not traceable

12.3. Bioaccumulative potential

Bioconcentration factor (BCF)	:	not traceable
Log Po/w	:	not traceable

12.4. Mobility in soil

Henry Constant : not traceable

12.5. Results of PBT and vPvB assessment

Data not available.

12.6. Other adverse effects

Remarks on ecotoxicity : none

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Remainder material or uncleaned empty packagings have to be incinerated in a proper installation or dumped on an approved landfill, in accordance with local and national legislation.

SECTION 14: Transport information

14.1. UN number

Not subject to Transport-regulation Dangerous Substances

14.2. UN proper shipping name

Not subject to Transport-regulation Dangerous Substances

14.3. Transport hazard class(es)

Not subject to Transport-regulation Dangerous Substances

14.4. Packing group

Not subject to Transport-regulation Dangerous Substances

14.5. Environmental hazards

Marine pollutant : no

14.6. Special precautions for user

Not subject to Transport-regulation Dangerous Substances

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

Data not available.

SECTION 15: Regulatory information

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

- Data not available.

15.2. Chemical safety assessment

- Data not available.

SECTION 16: Other information

Remarks on SDS : none

Overview relevant H-sentences from all components in section 3

not applicable

Training advice

Provide adequate information, instruction and training for operators.

A key or legend to abbreviations and acronyms used in the safety data sheet

REACH	Registration, Evaluation and Authorisation of CHemicals
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
CAS	Chemical Abstracts Service
TGG = TWA	Time Weighted Average
LEL	Lower Explosive Limit
UEL	Upper Explosive Limit
NTP	National Toxicology Program
KHC	Known Human Carcinogen
RAHC	Reasonably Anticipated Human Carcinogen
IARC	International Agency for Research on Cancer
OSHA	Occupational Safety & Health Administration
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
RID	Règlement concernant le transport international ferroviaire des marchandises dangereuses
UN	United Nations
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
EmS	Emergency Schedule

* Point to alterations with regard to the previous version.
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