SAFETY DATA SHEET

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

DE / EN

Metallschutz-Lack Hammerschlag

Version	Revision Date:	SDS Number:	Date of last issue: 15.02.2023
2.0	11.12.2024	6009046	Date of first issue: 15.11.2019

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

1.1 Product identifier

Trade name : Metallschutz-Lack Hammerschlag

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

Use of the Substance/Mixture : Solvent-borne coatings

Recommended restrictions on use : within adequate application - none

1.3 Details of the supplier of the safety data sheet

Company : Alpina Farben GmbH
Roßdörfer Straße 50
64372 OBER RAMSTADT

Telephone : +498001238887

Telefax : +4961547170632

Website : www.alpina-farben.de

E-mail address Responsible/issuing person : msds@dr-rmi.com

1.4 Emergency telephone

Emergency telephone 1 : +49613284463 GBK GmbH

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapor.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal Word : Warning

Hazard Statements :

H226	Flammable liquid and vapor.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements :

EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary Statements :

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.

Response:

P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391	Collect spillage.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients which must be listed on the label:

Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha

Additional Labeling

EUH208 Contains neodecanoic acid, cobalt salt. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha	64742-48-9 265-150-3 649-327-00-6 01-2119457273-39, 01-2119463258-33	Flam. Liq. 3; H226 STOT SE 3; H336 Asp. Tox. 1; H304 EUH066	>= 30 - < 50
trizinc bis(orthophosphate)	7779-90-0 231-944-3 030-011-00-6 01-2119485044-40	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 2,5 - < 10
copper	7440-50-8 231-159-6 029-024-00-X 01-2119480154-42, 01-2120762783-45	Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 2,5 - < 10
Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha	64742-48-9 265-150-3 649-327-00-6 01-2119457273-39, 01-2119463258-33, 01-2119486659-16	Asp. Tox. 1; H304 EUH066	>= 1 - < 10
zinc oxide	1314-13-2 215-222-5 030-013-00-7 01-2119463881-32, 01-2120089607-43, 01-2120767291-53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 1 - < 2,5
zinc powder — zinc dust (stabi-	7440-66-6	Aquatic Acute 1;	>= 1 - < 2,5

lised)	231-175-3 030-001-01-9 01-2119467174-37, 01-2119459210-49	H400 Aquatic Chronic 1; H410	
neodecanoic acid, cobalt salt	27253-31-2 248-373-0 01-2119970733-31	Acute Tox. 4; H302 Skin Sens. 1; H317 STOT RE 1; H372 (Other) Aquatic Chronic 3; H412	>= 0,1 - < 0,25

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice : Never give anything by mouth to an unconscious person.
If you feel unwell, seek medical advice (show the label where possible).
Move out of dangerous area.
First aider needs to protect himself.

If inhaled : If symptoms persist, call a physician.
Move to fresh air.

In case of skin contact : Do NOT use solvents or thinners.
In case of contact, immediately flush skin with soap and plenty of water.
Take off all contaminated clothing immediately.

In case of eye contact : If eye irritation persists: Get medical advice/ attention.
IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.

If swallowed : Seek medical advice.
Clean mouth with water and drink afterwards plenty of water.
If swallowed, DO NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Risks : May cause drowsiness or dizziness.
Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Do not use a solid water stream as it may scatter and spread fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : Cool closed containers exposed to fire with water spray.
In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

5.3 Advice for firefighters

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Standard procedure for chemical fires.
In the event of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Do not get in eyes, on skin, or on clothing.
Ensure adequate ventilation.
Remove all sources of ignition.

6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Keep in suitable, closed containers for disposal.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

For further information see Section 7 of the safety data sheet.
, For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Non-sparking tools should be used. For personal protection see section 8. Avoid exceeding the given occupational exposure limits (see section 8). Provide sufficient air exchange and/or exhaust in work rooms. Please follow the technical information.
Advice on protection against fire and explosion	:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures	:	Avoid contact with the skin and the eyes. Wash hands before eating, drinking, or smoking. Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Store in original container. Store between 41 and 77 °F in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Storage class (TRGS 510)	:	3

7.3 Specific end use(s)

Specific use(s)	:	This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha	64742-48-9	AGW	300 mg/m3	DE TRGS 900
	Peak-limit category: 2;(II)			
	Further information: Group exposure limit for hydrocarbon solvent mixtures			

Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha	64742-48-9	AGW	300 mg/m3	DE TRGS 900
	Peak-limit category: 2;(II)			
	Further information: Group exposure limit for hydrocarbon solvent mixtures			
zinc oxide	1314-13-2	MAK (measured as the alveolate fraction)	0,1 mg/m3	DE DFG MAK
	Further information: Zinc chloride: peak limit I(1), Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
		MAK (inhalable fraction)	2 mg/m3	DE DFG MAK
	Further information: Zinc chloride: peak limit I(1), Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Routes of exposure	Potential health effects	Value
trizinc bis(orthophosphate)	Consumers	Ingestion	Long-term systemic effects	0,83 mg/kg bw/day
	Consumers	Skin contact	Long-term systemic effects	83,00 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	2,50 mg/m3
	Workers	Inhalation	Long-term systemic effects	5,00 mg/m3
	Workers	Skin contact	Long-term systemic effects	83,00 mg/kg bw/day
copper	Consumers	Skin contact	Acute systemic effects	273,00 mg/kg bw/day
	Consumers	Skin contact	Long-term systemic effects	137,00 mg/kg bw/day
	Consumers	Inhalation	Acute systemic effects	20,00 mg/m3
	Consumers	Inhalation	Acute local effects	1,00 mg/m3
	Consumers	Inhalation	Long-term local effects	1,00 mg/m3
	Workers	Inhalation	Acute systemic effects	20,00 mg/m3
	Workers	Inhalation	Acute local effects	1,00 mg/m3
	Workers	Inhalation	Long-term local effects	1,00 mg/m3
	Workers	Skin contact	Acute systemic effects	273,00 mg/kg bw/day
	Workers	Skin contact	Long-term systemic effects	137,00 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	0,04 mg/kg bw/day
zinc oxide	Consumers	Skin contact	Long-term systemic	83,00 mg/kg

			effects	bw/day
	Consumers	Inhalation	Long-term systemic effects	2,50 mg/m3
	Consumers	Ingestion	Long-term systemic effects	0,83 mg/kg bw/day
	Workers	Skin contact	Long-term systemic effects	83,00 mg/kg bw/day
	Workers	Inhalation	Long-term local effects	0,50 mg/m3
	Workers	Inhalation	Long-term systemic effects	5,00 mg/m3
zinc powder — zinc dust (stabilised)	Consumers	Inhalation	Long-term systemic effects	2,50 mg/m3
	Consumers	Ingestion	Long-term systemic effects	0,83 mg/kg bw/day
	Consumers	Skin contact	Long-term systemic effects	83,00 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	5,00 mg/m3
	Workers	Skin contact	Long-term systemic effects	83,00 mg/kg bw/day
neodecanoic acid, cobalt salt	Consumers	Ingestion	Long-term systemic effects	64,90 µg/kg bw/day
	Consumers	Inhalation	Long-term local effects	43,00 µg/m3
	Workers	Inhalation	Long-term local effects	273,20 µg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
trizinc bis(orthophosphate)	Sea sediment	56,5 mg/kg dry weight (d.w.)
	Fresh water	20,6 µg/l
	Soil	35,6 mg/kg dry weight (d.w.)
	Sewage treatment plant	100 µg/l
	Fresh water sediment	117,8 mg/kg dry weight (d.w.)
	Sea water	6,1 µg/l
copper	Fresh water	7,8 µg/l
	Fresh water sediment	87 mg/kg dry weight (d.w.)
	Sea sediment	676 mg/kg dry weight (d.w.)
	Sea water	5,2 µg/l
	Soil	65 mg/kg dry weight (d.w.)
	Sewage treatment plant	230 µg/l
zinc oxide	Fresh water sediment	117,8 mg/kg dry weight (d.w.)
	Sea water	6,1 µg/l

	Fresh water	20,6 µg/l
	Sea sediment	56,5 mg/kg dry weight (d.w.)
	Sewage treatment plant	100 µg/l
	Soil	35,6 mg/kg dry weight (d.w.)
zinc powder — zinc dust (stabilised)	Soil	35,6 mg/kg dry weight (d.w.)
	Sea water	6,1 µg/l
	Fresh water	20,6 µg/l
	Fresh water sediment	117,8 mg/kg dry weight (d.w.)
	Sewage treatment plant	100 µg/l
	Sea sediment	56,5 mg/kg dry weight (d.w.)
neodecanoic acid, cobalt salt	Soil	10,9 mg/kg dry weight (d.w.)
	Sea water	2,36 µg/l
	Sea sediment	9,5 mg/kg dry weight (d.w.)
	Fresh water sediment	9,5 mg/kg dry weight (d.w.)
	Fresh water	0,6 µg/l
	Sewage treatment plant	0,37 mg/l

8.2 Exposure controls

Personal protective equipment

Eye/face protection : DGUV Regulation 112-192 - Use of eye and face protection

Goggles

Hand protection
- Material : Nitrile rubber
- Glove thickness : 0,2 mm
- Protective index : Class 3

Remarks : Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Before removing gloves clean them with soap and water. Wear suitable gloves tested to EN374.
DGUV Regulation 112-195 - Use of protective gloves

Skin and body protection : Safety shoes
Long sleeved clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Skin should be washed after contact.

		During spray application: impervious clothing
Respiratory protection	:	No personal respiratory protective equipment normally required. During spray application: Do not breathe spray dust. Use A2/P2 combination filter for paint spraying. DGUV Regulation 112-190 - Use of breathing equipment

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Color	:	brown
Odor	:	No data available
Odor Threshold	:	Not relevant
Melting point/freezing point	:	not determined
Boiling point/boiling range	:	not determined
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Flash point	:	40 °C
Autoignition temperature	:	not determined
Decomposition temperature	:	Not applicable
pH	:	6,95 Concentration: 10 %

Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 20,5 mm2/s (40 °C)
Flow time	:	> 60 s at 23 °C Cross section: 6 mm Method: ISO 2431
Solubility(ies)		
Water solubility	:	partly miscible
Partition coefficient: n-octanol/water	:	not determined
Vapor pressure	:	not determined
Relative density	:	not determined
Density	:	0,95 g/cm3
Relative vapor density	:	Heavier than air.

9.2 Other information

Explosives	:	Not applicable
Oxidizing properties	:	Not applicable
Flammability (liquids)	:	Sustains combustion
Evaporation rate	:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Vapors may form explosive mixture with air.
Hazardous decomposition products formed under fire conditions.

10.4 Conditions to avoid

Conditions to avoid : Protect from frost, heat and sunlight.

10.5 Incompatible materials

Materials to avoid : Incompatible with acids and bases.
Incompatible with oxidizing agents.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Components:

copper:

Acute oral toxicity : LD50 (Rat, male and female): 481 mg/kg
Method: OECD Test Guideline 401

Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Not classified based on available information.

Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

copper:

M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	10

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Components:

Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha:

Partition coefficient: n-	:	log Pow: 1,99 - 18,02 (20 °C)

octanol/water pH: 7

Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha:

Partition coefficient: n-octanol/water : log Pow: 1,99 - 18,02 (20 °C)
pH: 7

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of liquid material residues at the collection point for old paints/varnishes, dispose of dried material residues as construction and demolition waste or as municipal waste or household waste.

Waste should not be disposed of via wastewater.

Contaminated packaging : Only completely emptied containers should be given for recycling.

Waste Code : used product
080112, waste paint and varnish other than those mentioned in 08 01 11*

SECTION 14: Transport information

14.1 UN number or ID number

ADN	:	UN 1263
ADR	:	UN 1263
RID	:	UN 1263
IMDG	:	UN 1263
IATA	:	UN 1263

14.2 UN proper shipping name

ADN	:	PAINT
ADR	:	PAINT
RID	:	PAINT
IMDG	:	PAINT (trizinc bis(orthophosphate), copper)
IATA	:	Paint

14.3 Transport hazard class(es)

		Class	Subsidiary risks
ADN	:	3	
ADR	:	3	
RID	:	3	
IMDG	:	3	
IATA	:	3	

14.4 Packing group

ADN

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3

ADR

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3
Tunnel restriction code	:	(D/E)

RID

Packing group	:	III
Classification Code	:	F1

Hazard Identification Number	:	30
Labels	:	3

IMDG

Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E

IATA (Cargo)

Packing instruction (cargo aircraft)	:	366
Packing instruction (LQ)	:	Y344
Packing group	:	III
Labels	:	Flammable Liquids

IATA (Passenger)

Packing instruction (passenger aircraft)	:	355
Packing instruction (LQ)	:	Y344
Packing group	:	III
Labels	:	Flammable Liquids

14.5 Environmental hazards

ADN
Environmentally hazardous : yes

ADR
Environmentally hazardous : yes

RID
Environmentally hazardous : yes

IMDG
Marine pollutant : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 75, 3

If you intend to use this product as tattoo ink, please contact your ven-

		dor. copper (Number on list 75) zinc powder — zinc dust (stabilised) (Number on list 75)
REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	:	None
Regulation (EC) on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	None

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	E1	ENVIRONMENTAL HAZARDS
	P5c	FLAMMABLE LIQUIDS
	34	Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)

Water hazard class (Germany)	:	WGK 2 obviously hazardous to water
Product code for laquers and paints / Giscode	:	M-LL02 Alkyd resin varnishes, low in aromatics
.	:	BSL20 Coating materials, solvent-based, aromatic-free, classified
Volatile organic compounds	:	Volatile organic compounds (VOC) content: 47,7 %, 477 g/l

Volatile organic compounds : < 48 %
< 480 g/l

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this mixture.

SECTION 16: Other information

Full text of H-Statements

H226	:	Flammable liquid and vapor.
H302	:	Harmful if swallowed.
H304	:	May be fatal if swallowed and enters airways.
H317	:	May cause an allergic skin reaction.
H319	:	Causes serious eye irritation.
H336	:	May cause drowsiness or dizziness.
H372	:	Causes damage to organs through prolonged or repeated exposure if swallowed.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.
EUH066	:	Repeated exposure may cause skin dryness or cracking.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	:	Aspiration hazard
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Sens.	:	Skin sensitization
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
DE DFG MAK	:	Germany. MAK BAT Annex IIa
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
DE DFG MAK / MAK	:	MAK value
DE TRGS 900 / AGW	:	Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information : No exposure scenario communication is required for this product according to REACH Regulation No. 1907/2006 EC. Communication of Uses is not required in accordance with REACH Article 31(1)(a) - registered substances / mixtures do not meet the criteria for classification as hazardous in accordance with Regulations 1272/2008 EC or 1999/45/EC.

Sources of key data used to compile the Material Safety Data Sheet : ECHA WebSite
ACGIH (American Conference of Government Industrial Hygienists). 2014 TLVs and BEIs. Threshold Limit Values (TLVs) for chemical substances and physical agents and Biological Exposure Indices (BEIs) with Seventh Edition documentation. 2014 ACGIH, Cincinnati OH
NIOSH - Registry of toxic effects of chemical substances
ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX'S - Dangerous properties of industrial materials
GESTIS - Database on hazardous substances - Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA, Institute for Occupational Safety and Health of the German Social Accident Insurance)
Toxnet - Toxicology Data Network

Classification of the mixture:		**Classification procedure:**
Flam. Liq. 3	H226	Based on product data or assessment
STOT SE 3	H336	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

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.

REACH Information

According to our legal obligation we implement the Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). We will adjust and update our safety data sheets on a regular base in accordance with the information of our up-stream-suppliers. As usual we will inform you about the adjustments.
Regarding to the REACH regulation we would like to point out that DAW as a downstream user will not register on behalf of our company. We will rely on information from our suppliers. As soon as new information is available our safety data sheets will be amended accordingly.

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