

Safety Data Sheet

according to Regulation (EC) No 1907/2006

IN-BI58-SP03-X102; BSA04-XSP

Revision date: 25.11.2016

Product code: 950617

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

IN-BI58-SP03-X102; BSA04-XSP

Further trade names

This MSDS covers the following products:

IN-BI58-SP03-X102

BSA04-XSP

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

Solder paste

Uses advised against

any non-intended use.

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

Company name: Cobar Europe BV
Street: Aluminiumstraat 2
Place: NL-4823 AL Breda
Telephone: +31 76 5445566
e-mail: info@Cobar.com

Telefax: +31 76 5445577

Supplier

Company name: Balver Zinn Josef Jost GmbH & Co. KG
Street: Blintroper Weg 11
Place: D-58802 Balve
Telephone: +49 2375 915-0
Responsible Department: sds@balverzinn.com

Telefax: +49 2375 915-1700

1.4. Emergency telephone

Chemtrec: +44(0) 870-8200418

number:**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

Harmful to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Signal word:** Warning**Pictograms:**

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Hazard statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
7440-69-9	bismuth			50 - < 55 %
	231-177-4			
7440-31-5	tin			35 - < 40 %
	231-141-8			
65997-13-9	ester of hydrogenated rosin			5 - < 10 %
2687-94-7	N-(n-octyl)-2-pyrrolidone			1 - < 5 %
	403-700-8	613-098-00-0	01-0000015335-74	
	Skin Corr. 1B, Aquatic Chronic 2; H314 H411			
	Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]			< 1 %
	484-050-2		01-0000020228-74	
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410			

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

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Change contaminated clothing.

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After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Remove contaminated, saturated clothing immediately. Wash immediately with: Water and soap. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice.

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

refer to chapter 2 and 11.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Sand
Extinguishing powder
D -powder

Unsuitable extinguishing media

Extinguishing media which must not be used for safety reasons:
Water
High power water jet
Water spray jet

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Gas/vapours, irritant. Carbon monoxide Carbon dioxide (CO₂). Nitrogen oxides (NO_x). Metal oxide smoke, toxic.

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Use water spray jet to protect personnel and to cool endangered containers.
Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Ventilate affected area.
Do not breathe vapour/aerosol. Avoid contact with skin, eyes and clothes.
Wear personal protection equipment. (See section 8.)

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Take up mechanically.

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Treat the recovered material as prescribed in the section on waste disposal.
Clean contaminated articles and floor according to the environmental legislation.

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****Advice on safe handling**

Provide adequate ventilation.
Do not breathe smoke. Do not breathe vapour/aerosol. Avoid contact with skin, eyes and clothes.
Wear suitable protective clothing. (See section 8.)

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.
Keep/Store only in original container.

Advice on storage compatibility

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
Protect against: UV-radiation/sunlight. heat. moisture. frost.
storage temperature: refer to specifications.

7.3. Specific end use(s)

refer to chapter 1.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
7440-69-9	bismuth			
Worker DNEL, long-term		inhalation	systemic	13,1 mg/m ³
Consumer DNEL, long-term		oral	systemic	13,3 mg/kg bw/day
7440-31-5	tin			
Consumer DNEL, long-term		inhalation	systemic	3,476 mg/m ³
Consumer DNEL, acute		inhalation	systemic	3,476 mg/m ³
Worker DNEL, long-term		inhalation	systemic	11,75 mg/m ³
Worker DNEL, acute		inhalation	systemic	11,75 mg/m ³
Consumer DNEL, long-term		dermal	systemic	80 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	133,3 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	80 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	133,3 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	80 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	80 mg/kg bw/day
2687-94-7	N-(n-octyl)-2-pyrrolidone			
Worker DNEL, long-term		inhalation	systemic	18,52 mg/m ³
	Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]			
Worker DNEL, long-term		inhalation	systemic	9,8 mg/m ³
Worker DNEL, long-term		dermal	systemic	14 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	2,9 mg/m ³
Consumer DNEL, long-term		dermal	systemic	8,3 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	8,3 mg/kg bw/day

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PNEC values

CAS No	Substance	Value
Environmental compartment		
7440-69-9	bismuth	
Micro-organisms in sewage treatment plants (STP)		17,5 mg/l
2687-94-7	N-(n-octyl)-2-pyrrolidone	
Freshwater sediment		0,08 mg/kg
Marine water		0,0012 mg/l
Micro-organisms in sewage treatment plants (STP)		4,6 mg/l
Marine sediment		0,008 mg/kg
Soil		0,06 mg/kg
Freshwater		0,012 mg/l
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]		
Freshwater		0,000146 mg/l
Marine water		0,0000146 mg/l
Soil		66,576 mg/kg
Marine sediment		5,554 mg/kg
Freshwater sediment		55,54 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l

8.2. Exposure controls



Appropriate engineering controls

If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

Protective and hygiene measures

The usual precautions for handling chemicals should be considered.

Keep away from food, drink and animal feedingstuffs.

Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Protect skin by using skin protective cream. Take off contaminated clothing.

Eye/face protection

Recommended eye protection brand: Tightly sealed safety glasses. (DIN EN 166)

Hand protection

Wear suitable gloves.

for coarse soldering works: heat insulating.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

In the case of wanting to use the gloves again, clean them before taking off and air them well. Before using check leak tightness / impermeability.

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.

Skin protection

Protective clothing (heat-resistant)

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Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:
insufficient ventilation.

exceeding exposure limit values

Suitable respiratory protective equipment: Particle filter device (DIN EN 143) Type: P2/3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

This material and its container must be disposed of in a safe way.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Paste
Colour:	metallic, grey
Odour:	characteristic.

Test method

pH-Value:	not determined
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Changes in the physical state

Melting point:	not determined
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Initial boiling point and boiling range:	not determined
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Flash point:	not determined
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Explosive properties

none

Lower explosion limits:	not determined
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Upper explosion limits:	not determined
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Decomposition temperature:	not determined
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Oxidizing properties

none.

Vapour pressure: (at 20 °C)	not determined
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Density:	not determined
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Water solubility:	not miscible
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Solubility in other solvents

not determined

Viscosity / dynamic: (at 20 °C)	not determined
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Viscosity / kinematic: (at 20 °C)	not determined
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Flow time:	not determined
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Vapour density:	not determined
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9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

Reacts with : Strong acid, Oxidising agent

10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

10.5. Incompatible materials

Can be released in case of fire: Gas/vapours, irritant. Carbon monoxide Carbon dioxide (CO₂). Nitrogen oxides (NO_x). Metal oxide smoke, toxic.

10.6. Hazardous decomposition products

Can be released in case of fire: Gas/vapours, irritant. Carbon monoxide Carbon dioxide (CO₂). Nitrogen oxides (NO_x)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No data available.

Acute toxicity

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

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
7440-69-9	bismuth			
	oral	LD50 2000 mg/kg	Rat	ECHA Dossier
7440-31-5	tin			
	oral	LD50 >2000 mg/kg	Rat	ECHA Dossier
	dermal	LD50 >2000 mg/kg	Rat	ECHA Dossier
	inhalative (4 h) aerosol	LC50 (>4,75) mg/l	Rat	ECHA Dossier
2687-94-7	N-(n-octyl)-2-pyrrolidone			
	oral	LD50 2050 mg/kg	Rat	RTECS
	dermal	LD50 >2000 mg/kg	Rabbit.	RTECS
	Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]			
	oral	LD50 >2000 mg/kg	Rat	ECHA Dossier
	dermal	LD50 >2000 mg/kg		ECHA Dossier
	inhalative aerosol	LC50 (>6,3) mg/l		ECHA Dossier

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

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Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

N-(n-octyl)-2-pyrrolidone (CAS-No.: 2687-94-7):

In-vitro mutagenicity: No experimental indications of mutagenicity in-vitro exist.

literature information: ECHA Dossier

Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide] (EC No. 484-050-2):

In-vitro mutagenicity: No experimental indications of mutagenicity in-vitro exist.

Reproductive toxicity:

Species: CrI:WI(Han) Rat.

Method: no guideline mentioned

Result: NOAEL = >1000 mg/kg/day

literature information: ECHA Dossier

STOT-single exposure

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

STOT-repeated exposure

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

Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide] (EC No. 484-050-2):

Subacute oral toxicity:

Exposure time: 28d

Species: Wistar Rat.

Method: no guideline mentioned

Result: NOAEL = >1000 mg/kg(bw)/day

literature information: ECHA Dossier

Aspiration hazard

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

Specific effects in experiment on an animal

No data available.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	
2687-94-7	N-(n-octyl)-2-pyrrolidone					
	Acute fish toxicity	LC50	17,8 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier
	Acute algae toxicity	ErC50	19,5 mg/l	72 h	Desmodesmus subspicatus	ECHA Dossier
	Acute crustacea toxicity	EC50	19,1 mg/l	48 h	Daphnia magna	ECHA Dossier
	Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]					
	Acute fish toxicity	LC50	(>0,024) mg/l	96 h	Cyprinus carpio	ECHA Dossier
	Acute algae toxicity	ErC50	(0,025) mg/l	72 h	Selenastrum capricornutum	ECHA Dossier
	Acute crustacea toxicity	EC50	(>0,024) mg/l	48 h	Daphnia magna	ECHA Dossier
	Algae toxicity	NOEC	(0,0073) mg/l	3 d	Algae	ECHA Dossier
	Crustacea toxicity	NOEC	(>0,024) mg/l	21 d	Daphnia magna	ECHA Dossier

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12.2. Persistence and degradability

CAS No	Chemical name
	Method
	Value
	d
	Source
	Evaluation
	Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]
	no guideline followed
	7%
	28
	MSDS extern.
	Product is not easily biodegradable.

12.3. Bioaccumulative potential**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
	Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	>6,5

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to EAKV:

Waste disposal number of waste from residues/unused products

160303 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; inorganic wastes containing hazardous substances
Classified as hazardous waste.

Waste disposal number of used product

160303 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; inorganic wastes containing hazardous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150202 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; absorbents, filter materials, wiping cloths and protective clothing; absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances
Classified as hazardous waste.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

Recommended cleaning agent: Water, if necessary together with cleansing agents.

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SECTION 14: Transport information

Land transport (ADR/RID)

- 14.1. UN number:** Not restricted
- 14.2. UN proper shipping name:** Not restricted
- 14.3. Transport hazard class(es):** Not restricted
- 14.4. Packing group:** Not restricted

Inland waterways transport (ADN)

- 14.1. UN number:** Not restricted
- 14.2. UN proper shipping name:** Not restricted
- 14.3. Transport hazard class(es):** Not restricted
- 14.4. Packing group:** Not restricted

Marine transport (IMDG)

- 14.1. UN number:** Not restricted
- 14.2. UN proper shipping name:** Not restricted
- 14.3. Transport hazard class(es):** Not restricted
- 14.4. Packing group:** Not restricted

Air transport (ICAO-TI/IATA-DGR)

- 14.1. UN number:** Not restricted
- 14.2. UN proper shipping name:** Not restricted
- 14.3. Transport hazard class(es):** Not restricted
- 14.4. Packing group:** Not restricted

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

See section 8.

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

not relevant.

SECTION 15: Regulatory information

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

EU regulatory information

- 2010/75/EU (VOC): No information available.
- 2004/42/EC (VOC): No information available.
- Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No: not relevant

National regulatory information

- Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
- Water contaminating class (D): 2 - water contaminating

Additional information

Observe technical data sheet.

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15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

Rev. 1.00; 11.05.2015, Initial release

Rev. 1.01; 12.06.2015, Indication of changes section: 3, 16.

Rev. 1.1; 25.11.2016, Indication of changes - chapter: 1, 2, 3, 6, 12, 15, 16.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

CAS Chemical Abstracts Service

DNEL: Derived No Effect Level

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect level

NTP: National Toxicology Program

N/A: not applicable

OSHA: Concerning the International Transport of Dangerous Goods by Rail)

PNEC: predicted no effect concentration

PBT: Persistent bioaccumulative toxic

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

SARA: Superfund Amendments and Reauthorization Act

SVHC: substance of very high concern

TRGS Technische Regeln für Gefahrstoffe

TSCA: Toxic Substances Control Act

VOC: Volatile Organic Compounds

VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe

WGK: Wassergefährdungsklasse

Relevant H and EUH statements (number and full text)

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Further Information

Classification according EC regulation 1272/2008 (CLP): - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

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Physical hazards: On basis of test data. and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)