

Safety Data Sheet

according to Regulation (EC) No 1907/2006

S63-XF3+; P-S62-GF3+; S62-HF3+; S62-XF3+

Revision date: 03.07.2018

Product code: 950703

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

S63-XF3+; P-S62-GF3+; S62-HF3+; S62-XF3+

Further trade names

This MSDS covers the following products:

S63-XF3+

P-S62-GF3+

S62-HF3+

S62-XF3+

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: cia@BalverZinn.com

Telefax: +49 2375 915-114

1.4. Emergency telephone number:

Chemtrec: +44(0) 870-8200418

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

Reproductive toxicity: Repr. 1A

Reproductive toxicity: Lact.

Specific target organ toxicity - repeated exposure: STOT RE 1

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

May damage fertility. May damage the unborn child.

May cause harm to breast-fed children.

Causes damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

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2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

lead powder [particle diameter < 1 mm]

Signal word: Danger

Pictograms:



Hazard statements

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H360FD May damage fertility. May damage the unborn child.
- H362 May cause harm to breast-fed children.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

- P201 Obtain special instructions before use.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P263 Avoid contact during pregnancy and while nursing.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P391 Collect spillage.

Special labelling of certain mixtures

- EUH208 Contains Resin acids and Rosin acids, fumarated, esters with glycerol. May produce an allergic reaction.
Restricted to professional users.

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]	
7440-31-5	tin	50 - < 60 %
	231-141-8	01-2119486474-28
7439-92-1	lead powder [particle diameter < 1 mm]	30 - < 35 %
	231-100-4	082-013-00-1
	01-2119513221-59	
	Repr. 1A, Lact., STOT RE 1, Aquatic Acute 1 (M-Factor = 10), Aquatic Chronic 1 (M-Factor = 1); H360FD H362 H372 H400 H410	
65997-06-0	hydrogenated rosin	1 - < 5 %
	266-041-3	01-2119487113-41

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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			
65997-13-9	ester of hydrogenated rosin			1 - < 5 %
	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-alkandylbis[12-hydroxyoctadecanamide]			< 1 %
	484-050-2		01-0000020228-74	
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410			
97489-11-7	Resin acids and Rosin acids, fumarated, esters with glycerol			< 1 %
	307-051-0			
	Eye Irrit. 2, Skin Sens. 1; H319 H317			
7440-22-4	silver			< 2 %
	231-131-3		01-2119555669-21	

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

Further Information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: lead powder [particle diameter < 1 mm] CAS n°: 7439-92-1

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.

First aider: Pay attention to self-protection!

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. Get medical advice/attention.

After contact with skin

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

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. Get medical advice/attention.

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**

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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.
In case of fire: Wear self-contained breathing apparatus.

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. Remove persons to safety.
Avoid exposure. Do not breathe smoke. Do not breathe vapour/aerosol. Avoid contact with skin, eyes and clothes.
Wear personal protection equipment. (See section 8.)
Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

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.
Treat the recovered material as prescribed in the section on waste disposal.
Clean contaminated objects and areas thoroughly observing environmental regulations.

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 as well as local exhaustion at critical locations.
Avoid exposure - obtain special instructions before use.
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.

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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. Gas. Oxidizing liquids. Oxidizing solids. Self-reactive substances and mixtures. Organic peroxides. Ammonium nitrate and preparations containing ammonium nitrate. Combustible toxic substances. Non-combustible toxic substances. 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

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
-	Lead other than lead alkyls	-	0.15		TWA (8 h)	CLAW
		-	-		STEL (15 min)	CLAW
7440-22-4	Silver, metallic	-	0.1		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
7439-92-1	Lead (any other employee)	lead	35 µg/dl	blood	Random

DNEL/DMEL values

CAS No	Substance	DNEL type	Exposure route	Effect	Value
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

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Consumer DNEL, acute	oral	systemic	80 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	80 mg/kg bw/day
65997-06-0	hydrogenated rosin		
Consumer DNEL, long-term	dermal	systemic	10 mg/kg bw/day
Worker DNEL, long-term	dermal	systemic	17 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	35 mg/m ³
Worker DNEL, long-term	inhalation	systemic	117 mg/m ³
Consumer DNEL, long-term	oral	systemic	10 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
97489-11-7	Resin acids and Rosin acids, fumarated, esters with glycerol		
Worker DNEL, long-term	dermal	systemic	4 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	9 mg/m ³
Consumer DNEL, long-term	dermal	systemic	2,5 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	2,5 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	29 mg/m ³
7440-22-4	silver		
Consumer DNEL, long-term	oral	systemic	1,2 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	0,1 mg/m ³
Consumer DNEL, long-term	inhalation	systemic	0,04 mg/m ³

PNEC values

CAS No	Substance	Value
	Environmental compartment	Value
7439-92-1	lead powder [particle diameter < 1 mm]	
	Freshwater	0,0031 mg/l
	Marine water	0,0035 mg/l
	Freshwater sediment	174 mg/kg
	Marine sediment	164 mg/kg
	Secondary poisoning	10,9 mg/kg
	Micro-organisms in sewage treatment plants (STP)	0,1 mg/l
	Soil	212 mg/kg
65997-06-0	hydrogenated rosin	
	Freshwater	0,0016 mg/l
	Marine water	0,00016 mg/l
	Freshwater sediment	0,007 mg/kg
	Marine sediment	0,0007 mg/kg
	Micro-organisms in sewage treatment plants (STP)	1000 mg/l

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Soil		0,00045 mg/kg
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
97489-11-7	Resin acids and Rosin acids, fumarated, esters with glycerol	
Freshwater		0,1 mg/l
Marine water		0,01 mg/l
Freshwater sediment		1,55 mg/kg
Marine sediment		0,155 mg/kg
Micro-organisms in sewage treatment plants (STP)		1,26 mg/l
Soil		0,249 mg/kg
7440-22-4	silver	
Soil		1,41 mg/kg
Freshwater		0,00004 mg/l
Marine sediment		438,13 mg/kg
Freshwater sediment		438,13 mg/kg
Marine water		0,00086 mg/l
Micro-organisms in sewage treatment plants (STP)		0,025 mg/l

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.
Process within closed systems.

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 and wash it before reuse. Street clothing should be stored separately from work clothing. Contaminated work clothing should not be allowed out of the workplace.

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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)

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

Release of: product.

Suitable respiratory protective equipment: Particle filter device (DIN EN 143) Type: P3

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

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.	
pH-Value:		not determined

Changes in the physical state

Melting point:		179 °C
Initial boiling point and boiling range:		not determined
Flash point:		not determined

Explosive properties

none

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

Oxidizing properties

none.

Vapour pressure: (at 20 °C)		not determined
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Density: not determined

Water solubility: not miscible

Solubility in other solvents

not determined

Viscosity / dynamic: (at 20 °C) not determined

Viscosity / kinematic: (at 20 °C) not determined

Flow time: not determined

Vapour density: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

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

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

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong. Strong acid. strong alkalis.

10.6. Hazardous decomposition products

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

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	Method
7440-31-5	tin				
	oral	LD50 >2000 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 >2000 mg/kg	Rat	ECHA Dossier	
	inhalation (4 h) aerosol	LC50 (>4,75) mg/l	Rat	ECHA Dossier	
7439-92-1	lead powder [particle diameter < 1 mm]				
	oral	LD50 > 2000 mg/kg	Rat	Study report (2003)	OECD Guideline 423

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	dermal	LD50 mg/kg	> 2000	Rat	Study report (2003)	OECD Guideline 402
65997-06-0	hydrogenated rosin					
	oral	LD50 mg/kg	>5000	Rat.	RTECS	
	dermal	LD50 mg/kg	>2000	Rat.	MSDS extern.	
2687-94-7	N-(n-octyl)-2-pyrrolidone					
	oral	LD50 mg/kg	2050	Rat	RTECS	
	dermal	LD50 mg/kg	>2000	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-alkandylbis[12-hydroxyoctadecanamide]					
	oral	LD50 mg/kg	>2000	Rat	ECHA Dossier	
	dermal	LD50 mg/kg	>2000		ECHA Dossier	
	inhalation aerosol	LC50 mg/l	(>6,3)		ECHA Dossier	
97489-11-7	Resin acids and Rosin acids, fumarated, esters with glycerol					
	oral	LD50 mg/kg	>2000	Rat. (OECD 401)	ECHA Dossier	
	dermal	LD50 mg/kg	>2000	Rat. (OECD 402)	ECHA Dossier	
7440-22-4	silver					
	oral	LD50 mg/kg	>2000	Rat	ECHA Dossier	
	dermal	LD50 mg/kg	>2000	Rat	ECHA Dossier	
	inhalation (4 h) aerosol	LC50 mg/l	>5,16	Rat	ECHA Dossier	

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

Contains Resin acids and Rosin acids, fumarated, esters with glycerol. May produce an allergic reaction.

May cause sensitisation especially in sensitive humans.

Carcinogenic/mutagenic/toxic effects for reproduction

May damage fertility. May damage the unborn child. (lead powder [particle diameter < 1 mm])

May cause harm to breast-fed children. (lead powder [particle diameter < 1 mm])

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

lead (CAS No. 7439-92-1):

In vivo mutagenicity/genotoxicity Evidence exists for in-vivo mutagenicity.

Carcinogenicity: LOAEL = >250 ppm (Rat; EPA OTS 798.332; 104 weeks)

Reproductive toxicity: NOAEL = 250 mg/L (Rat; 60d)

Literature information: ECHA Dossier

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

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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: Cr: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

Causes damage to organs through prolonged or repeated exposure. (lead powder [particle diameter < 1 mm])

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	Method
7439-92-1	lead powder [particle diameter < 1 mm]					
	Acute fish toxicity	LC50 mg/l	1,17	96 h	Oncorhynchus mykiss	Publication (1976) Acute bioassays
	Acute algae toxicity	ErC50 mg/l	0,123	72 h	Pseudokirchneriella subcapitata	Study report (2008) OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,1043	48 h	Ceriodaphnia dubia	Study report (2010) other: USEP
	Fish toxicity	NOEC mg/l	0,23	28 d	Cyprinodon variegatus	Study report (2010) other: ASTM Method E1241 2003
	Crustacea toxicity	NOEC mg/l	0,1433	126 d	other aquatic worm: Neanthes arenaceodentata	Study report (2007) other: PERL Protocol No. 3690NA-CSR120 d-
2687-94-7	N-(n-octyl)-2-pyrrolidone					
	Acute fish toxicity	LC50 mg/l	17,8	96 h	Oncorhynchus mykiss	ECHA Dossier
	Acute algae toxicity	ErC50 mg/l	19,5	72 h	Desmodesmus subspicatus	ECHA Dossier
	Acute crustacea toxicity	EC50 mg/l	19,1	48 h	Daphnia magna	ECHA Dossier

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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-alkandylbis[12-hydroxyoctadecanamide]						
Acute fish toxicity	LC50 mg/l	(>0,024)	96 h	Cyprinus carpio	ECHA Dossier	
Acute algae toxicity	ErC50 mg/l	(0,025)	72 h	Selenastrum capricornutum	ECHA Dossier	
Acute crustacea toxicity	EC50 mg/l	(>0,024)	48 h	Daphnia magna	ECHA Dossier	
Algae toxicity	NOEC mg/l	(0,0073)	3 d	Algae	ECHA Dossier	
Crustacea toxicity	NOEC mg/l	(>0,024)	21 d	Daphnia magna	ECHA Dossier	
97489-11-7 Resin acids and Rosin acids, fumarated, esters with glycerol						
Acute algae toxicity	ErC50 mg/l	>100	72 h	Desmodesmus subspicatus (OECD 201)	ECHA Dossier	
Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphnia magna (OECD 202)	ECHA Dossier	

12.2. Persistence and degradability

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
65997-06-0	hydrogenated rosin				
	OECD Guideline 301 B	0,95%	28	ECHA Dossier	
	Product is not easily biodegradable.				
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-alkandylbis[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-alkandylbis[12-hydroxyoctadecanamide]	>6,5

BCF

CAS No	Chemical name	BCF	Species	Source
7439-92-1	lead powder [particle diameter < 1 mm]	40000	Asellus meridianus	Freshwater Biology 7

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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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Advice on disposal

Dispose of waste according to applicable legislation. Consult the 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; 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; 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; 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.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 3077
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (lead powder [particle diameter < 1 mm])
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9
Classification code:	M7
Special Provisions:	274 335 375 601
Limited quantity:	5 kg
Excepted quantity:	E1
Transport category:	3
Hazard No:	90
Tunnel restriction code:	-

Inland waterways transport (ADN)

14.1. UN number:	UN 3077
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (lead powder [particle diameter < 1 mm])
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9

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Classification code: M7
 Special Provisions: 274 335 375 601
 Limited quantity: 5 kg
 Excepted quantity: E1

Marine transport (IMDG)

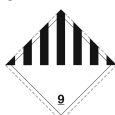
14.1. UN number: UN 3077
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (lead powder [particle diameter < 1 mm])
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9



Marine pollutant: YES
 Special Provisions: 274, 335, 966, 967, 969
 Limited quantity: 5 kg
 Excepted quantity: E1
 EmS: F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3077
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (lead powder [particle diameter < 1 mm])
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9



Special Provisions: A97 A158 A179 A197
 Limited quantity Passenger: 30 kg G
 Passenger LQ: Y956
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 956
 IATA-max. quantity - Passenger: 400 kg
 IATA-packing instructions - Cargo: 956
 IATA-max. quantity - Cargo: 400 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



Danger releasing substance: lead powder [particle diameter < 1 mm]

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

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

Restrictions on use (REACH, annex XVII):

Entry 30: lead powder [particle diameter < 1 mm]

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

Information according to 2012/18/EU (SEVESO III): E1 Hazardous to the Aquatic Environment

Additional information

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

REACH 1907/2006 Appendix XVII, No (mixture): 28/29/30, 63

National regulatory information

Employment restrictions: 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) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water contaminating class (D): 2 - clearly water contaminating

Additional information

Observe technical data sheet.

15.2. Chemical safety assessment

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

lead powder [particle diameter < 1 mm]

SECTION 16: Other information**Changes**

Rev. 1.00; 12.05.2015, 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, 7, 8, 12, 15, 16.

Rev. 2.0; 17.04.2018, Changes in chapter: 2,3,7,14,15.

Rev. 2.1; 03.07.2018, Changes in chapter: 3.

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

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

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N/A: not applicable
 OSHA: Occupational Safety and Health Administration
 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 fuerGefahrstoffe
 TSCA: Toxic Substances Control Act
 VOC: Volatile Organic Compounds
 VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe
 WGK: Wassergefaehrungsklasse

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

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Repr. 1A; H360FD	Calculation method
Lact.; H362	Calculation method
STOT RE 1; H372	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H and EUH statements (number and full text)

H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H360FD May damage fertility. May damage the unborn child.
 H362 May cause harm to breast-fed children.
 H372 Causes damage to organs through prolonged or repeated exposure.
 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.
 EUH208 Contains Resin acids and Rosin acids, fumarated, esters with glycerol. May produce an allergic reaction.

Further Information

Classification according EC regulation 1272/2008 (CLP): - Classification procedure:
 Health hazards: Calculation method.
 Environmental hazards: Calculation method.
 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.)