

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

## JEAN-151 SnBi28 T3/T4/T5

Revision date: 22.08.2022

Product code: 950635

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

JEAN-151 SnBi28 T3/T4/T5

**Further trade names**

This MSDS covers the following products:

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

Solder paste lead free

**Uses advised against**

Any non-intended use.

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

Company name:	Balver Zinn Josef Jost GmbH & Co. KG	
Street:	Blintroper Weg 11	
Place:	D-58802 Balve	
Telephone:	+49 2375 915-0	Telefax: +49 2375 915-114
Responsible Department:	cia@BalverZinn.com	

**1.4. Emergency telephone number:** +49 (0) 700 24 112 112 (Contract-ID: BZW) or  
+1 872 5888-271 (Contract-ID: BZW)

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

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

2-(2-hexyloxyethoxy)ethanol, 3,6-dioxa-1-dodecanol, 3,6-dioxadodecan-1-ol, DEGHE, diethylene glycol monohexyl ether, hexyl carbitol

**Signal word:** Danger**Pictograms:****Hazard statements**

H318 Causes serious eye damage.

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.

**Special labelling of certain mixtures**

EUH208 Contains N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide). May produce an allergic reaction.

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**2.3. Other hazards**

For information or further instructions, see also section 11 or 12.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7440-31-5	tin			50 - 80 %
	231-141-8		01-2119486474-28	
7440-69-9	bismuth			20 - 30 %
	231-177-4		01-2119560575-33	
65997-06-0	hydrogenated rosin			4 - 6 %
	266-041-3		01-2119487113-41	
112-59-4	2-(2-hexyloxyethoxy)ethanol, 3,6-dioxa-1-dodecanol, 3,6-dioxadodecan-1-ol, DEGHE, diethylene glycol monoethyl ether, hexyl carbitol			3 - 5 %
	203-988-3	603-175-00-7		
	Acute Tox. 4, Eye Dam. 1; H312 H318			
123-26-2	N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)			0.3 - < 0.5 %
	204-613-6		01-2120783565-42	
	Skin Sens. 1, Aquatic Chronic 3; H317 H412			

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
7440-31-5	231-141-8	tin	50 - 80 %
	inhalation: LC50 = (>4,75) mg/l (dusts or mists); dermal: LD50 = >2000 mg/kg; oral: LD50 = >2000 mg/kg		
7440-69-9	231-177-4	bismuth	20 - 30 %
	oral: LD50 = 2000 mg/kg		
65997-06-0	266-041-3	hydrogenated rosin	4 - 6 %
	dermal: LD50 = (>2000) mg/kg; oral: LD50 = >5000 mg/kg		
112-59-4	203-988-3	2-(2-hexyloxyethoxy)ethanol, 3,6-dioxa-1-dodecanol, 3,6-dioxadodecan-1-ol, DEGHE, diethylene glycol monoethyl ether, hexyl carbitol	3 - 5 %
	dermal: ATE = 1100 mg/kg		

**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)

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sheet if possible).

**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**

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. 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 (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>)..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****General advice**

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

**For non-emergency personnel**

Wear personal protection equipment (refer to section 8).

**For emergency responders**

No special measures are necessary.

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**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****For containment**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
Treat the recovered material as prescribed in the section on waste disposal.

**For cleaning up**

Clean contaminated objects and areas thoroughly observing environmental regulations.

**Other information**

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.  
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.

**Advice on general occupational hygiene**

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. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and after work. Protect skin by using skin protective cream. Take off contaminated clothing.

**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.

**Hints on joint storage**

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. Humidity frost.  
storage temperature: refer to specifications.

**7.3. Specific end use(s)**

See section 1.

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

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**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
111-46-6	Diethylene glycol	23	100		TWA (8 h)	
7440-02-0	Nickel	-	0.5		TWA (8 h)	
-	Rosin core solder pyrolysis products (as airborne total resin acid)	-	0.05		TWA (8 h)	
-		-	0.15		STEL (15 min)	
7440-31-5	Tin (Metal)	-	2		TWA (8 h)	
102-71-6	Triethanolamine	-	5		TWA (8 h)	

**Biological limit values**

CAS No	Substance	Parameter	Value	Test material	Sampling time
7440-02-0	Nickel	Ni	3 µg/L	Urine	After several consecutive working shifts

**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 <sup>3</sup>
		Consumer DNEL, acute	inhalation	systemic	3,476 mg/m <sup>3</sup>
		Worker DNEL, long-term	inhalation	systemic	11,75 mg/m <sup>3</sup>
		Worker DNEL, acute	inhalation	systemic	11,75 mg/m <sup>3</sup>
		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
7440-69-9	bismuth				
		Worker DNEL, long-term	inhalation	systemic	13,1 mg/m <sup>3</sup>
		Consumer DNEL, long-term	oral	systemic	13,3 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 <sup>3</sup>
		Worker DNEL, long-term	inhalation	systemic	117 mg/m <sup>3</sup>
		Consumer DNEL, long-term	oral	systemic	10 mg/kg bw/day
112-59-4	2-(2-hexyloxyethoxy)ethanol, 3,6-dioxa-1-dodecanol, 3,6-dioxadodecan-1-ol, DEGHE, diethylene glycol monoethyl ether, hexyl carbitol				
		Worker DNEL, long-term	inhalation	systemic	27,2 mg/m <sup>3</sup>
		Worker DNEL, long-term	dermal	systemic	8,3 mg/kg bw/day

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Consumer DNEL, long-term	inhalation	systemic	8,1 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	5 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	2,5 mg/kg bw/day
123-26-2	N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)		
Worker DNEL, long-term	inhalation	local	3,35 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	local	0,83 mg/m <sup>3</sup>
8050-15-5	Resin acids and Rosin acids, hydrogenated, Me esters		
Worker DNEL, long-term	dermal	systemic	6,3 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	44,6 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	systemic	13,2 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	3,8 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	3,8 mg/kg bw/day
7440-02-0	nickel		
Worker DNEL, acute	inhalation	systemic	680 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	local	0,05 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	systemic	0,05 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	local	4 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	local	0,035 mg/cm <sup>2</sup>
Consumer DNEL, long-term	inhalation	systemic	0,02 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	systemic	408 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	local	0,02 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	local	2,4 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	local	0,035 mg/cm <sup>2</sup>
Consumer DNEL, long-term	oral	systemic	0,02 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	0,012 mg/kg bw/day

**PNEC values**

CAS No	Substance	Value
Environmental compartment		
7440-69-9	bismuth	
Micro-organisms in sewage treatment plants (STP)		17,5 mg/l
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
Soil		0,00045 mg/kg
112-59-4	2-(2-hexyloxyethoxy)ethanol, 3,6-dioxa-1-dodecanol, 3,6-dioxadodecan-1-ol, DEGHE, diethylene glycol monoethyl ether, hexyl carbitol	
Freshwater		1,963 mg/l
Marine water		0,196 mg/l

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Freshwater sediment	10,7 mg/kg
Marine sediment	1,07 mg/kg
Micro-organisms in sewage treatment plants (STP)	10 mg/l
Soil	0,995 mg/kg
123-26-2	N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)
Secondary poisoning	0,1 mg/l
8050-15-5	Resin acids and Rosin acids, hydrogenated, Me esters
Freshwater	0,027 mg/l
Marine water	0,0027 mg/l
Freshwater sediment	625,79 mg/kg
Marine sediment	62,58 mg/kg
Micro-organisms in sewage treatment plants (STP)	2 mg/l
Soil	125 mg/kg

**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.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

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

**Hand protection**

In case of prolonged or frequently repeated skin contact: Wear suitable gloves.  
for coarse soldering works: heat insulating.

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 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 (D).

**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.

**Environmental exposure controls**

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

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

Physical state:

Colour: metallic, grey

Odour: characteristic.

**Changes in the physical state**

Melting point/freezing point: 139 - 189 °C

Boiling point or 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

pH-Value: not determined

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

Flow time: not determined

Water solubility: insoluble

**Solubility in other solvents**

not determined

Vapour pressure:  
(at 20 °C) not determined

Density: not determined

Relative vapour density: not determined

**9.2. Other information****Information with regard to physical hazard classes**Oxidizing properties  
none.**Other safety characteristics**

Solid content: not determined

**Further Information****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



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**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 (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Metal oxide smoke, toxic.

**SECTION 11: Toxicological information**

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

**Toxicokinetics, metabolism and distribution**

No data available.

**Acute toxicity**

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

**ATEmix calculated**

ATE (dermal) 28795,8 mg/kg; ATE (inhalation dust/mist) 6375,000 mg/l

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) dust/mist	LC50 (>4,75) mg/l	Rat	ECHA Dossier	
7440-69-9	bismuth				
	oral	LD50 2000 mg/kg	Rat	ECHA Dossier	
65997-06-0	hydrogenated rosin				
	oral	LD50 >5000 mg/kg	Rat.	RTECS	
	dermal	LD50 (>2000) mg/kg	Rat.	MSDS extern.	
112-59-4	2-(2-hexyloxyethoxy)ethanol, 3,6-dioxa-1-dodecanol, 3,6-dioxadodecan-1-ol, DEGHE, diethylene glycol monohexyl ether, hexyl carbitol				
	dermal	ATE 1100 mg/kg			

**Irritation and corrosivity**

Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

Contains N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide). May produce an allergic reaction.

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**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.

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**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	Dose		[h]   [d]	Species	Source	Method
112-59-4	2-(2-hexyloxyethoxy)ethanol, 3,6-dioxa-1-dodecanol, 3,6-dioxadodecan-1-ol, DEGHE, diethylene glycol monoethyl ether, hexyl carbitol						
	Acute fish toxicity	LC50	200 mg/l	96 h	Pimephales sp. (OECD 203)	ECHA Dossier	
	Acute algae toxicity	ErC50	147 mg/l	96 h	Desmodesmus subspicatus	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	Value		d	Source
	Method				
	Evaluation				
65997-06-0	hydrogenated rosin				
	OECD Guideline 301 B	0,95%		28	ECHA Dossier
	Product is not easily biodegradable.				

**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.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

**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.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

**12.7. 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****Disposal recommendations**

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, 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 (EWC) European Waste Catalogue:

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**List of Wastes Code - residues/unused products**

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

**List of Wastes Code - used product**

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

**List of Wastes Code - 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 or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

See section 8.

**14.7. Maritime transport in bulk according to IMO instruments**

not relevant.

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):  
Entry 27, Entry 75

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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**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)  
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].  
REACH 1907/2006 Appendix XVII, No (mixture): 3, 27

**National regulatory information**

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	1 - slightly hazardous to water

**15.2. Chemical safety assessment**

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

**SECTION 16: Other information****Changes**

Rev. 1.00; 22.08.2022, Initial release

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
CAS: Chemical Abstracts Service  
CLP: Classification, Labelling and Packaging of substances and mixtures  
DNEL: Derived No Effect Level  
d: day(s)  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
ECHA: European Chemicals Agency  
EWC: European Waste Catalogue  
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)  
h: hour  
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 concentration  
NLP: No-Longer Polymers  
N/A: not applicable  
OECD: Organisation for Economic Co-operation and Development  
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 )  
REACH: Registration, Evaluation, Authorisation of Chemicals

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

## JEAN-151 SnBi28 T3/T4/T5

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SVHC: substance of very high concern  
TRGS: Technische Regeln für Gefahrstoffe  
UN: United Nations  
VOC: Volatile Organic Compounds

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

Classification	Classification procedure
Eye Dam. 1; H318	Calculation method

## Relevant H and EUH statements (number and full text)

H312 Harmful in contact with skin.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H412 Harmful to aquatic life with long lasting effects.  
EUH208 Contains N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide). May produce an allergic reaction.

## Further Information

Classification according to Regulation (EC) No 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.)*