

SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

Silirub 2

	tion of the substance,	mixture and of the company/undertaking	
1.1. Product identifier Product name	: Silirub 2		
Registration number REACH			
Product type REACH	: Mixture		
1.2. Relevant identified u	ses of the substance or mixtu	re and uses advised against	
1.2.1 Relevant identified use	25		
Sealing compound			
1.2.2 Uses advised against			
No uses advised against l	known		
1.3. Details of the supplie	er of the safety data sheet		
Supplier of the safety data s	-		
SOUDAL N.V.	<u>neer</u>		
Everdongenlaan 18-20 B-2300 Turnhout			
■ +32 14 42 65 14			
msds@soudal.com			
Manufacturer of the produc	t		
SOUDAL N.V. Everdongenlaan 18-20			
B-2300 Turnhout			
msds@soudal.com			
1.4. Emergency telephon 24h/24h (Telephone adv +32 14 58 45 45 (Bl	ice: English, French, German, Dutch):		
SECTION 2: Hazards i	dentification		
2.1. Classification of the			
Not classified as dangero	us according to the criteria of Regulation	on (EC) No 1272/2008	
2.2. Label elements			
Not classified as dangero Supplemental information	us according to the criteria of Regulation	on (EC) No 1272/2008	
EUH208	Contains: 2-butanone oxime. May	produce an allergic reaction.	
2.3. Other hazards			
No other hazards known			
ECTION 3: Composit	ion/information on in	gredients	
3.1. Substances			
Not applicable			
3.2. Mixtures			
Name	CAS No		
REACH Registration No	EC No	Conc. (C) Classification according to CLP Note Remark	
	entrum voor gevaarlijke stoffen vzw (Bl		
Technische Schoolstraat 43 A, B-244 http://www.big.be © BIG vzw	iu Geel	Date of revision: 2017-03-13	
Reason for revision: 8.2			
Revision number: 0103		Product number: 55273	1/12

Silirub 2									
2-butanone oxime	96-29-7 202-496-6	0.1% <c<1%< th=""><th>Carc. 2; H351 Acute Tox. 4; H312 Eye Dam. 1; H318 Skin Sens. 1; H317</th><th>(1)(2)</th><th>Reaction product</th></c<1%<>	Carc. 2; H351 Acute Tox. 4; H312 Eye Dam. 1; H318 Skin Sens. 1; H317	(1)(2)	Reaction product				
hydrocarbons, C13-C23, n-alkanes, iso <0.03% aromatics 01-2119552497-29	alkanes, cyclics,	1% <c<10%< td=""><td>Asp. Tox. 1; H304</td><td>(1)(10)</td><td>UVCB</td></c<10%<>	Asp. Tox. 1; H304	(1)(10)	UVCB				
(1) For H-statements in full: see headin (2) Substance with a Community work (10) Subject to restrictions of Annex X	place exposure limit	6							
CTION 4: First aid mea	sures								
4.1. Description of first aid me General:	asures								
If you feel unwell, seek medical After inhalation:	advice.								
Remove the victim into fresh ai After skin contact:	r. Respiratory problems: consult a o	doctor/medical se	ervice.						
Wash immediately with lots of After eye contact:	water. Soap may be used. Take vict	tim to a doctor if	irritation persists.						
Rinse with water. Take victim to	an ophthalmologist if irritation pe	ersists.							
After ingestion: Rinse mouth with water. Consu	It a doctor/medical service if you fe	eel unwell.							
4.2. Most important symptom	s and effects, both acute a	nd delayed							
4.2.1 Acute symptoms After inhalation:									
No effects known.									
After skin contact:									
No effects known.									
After eye contact: No effects known.									
After ingestion:									
No effects known.									
4.2.2 Delayed symptoms No effects known.									
4.3. Indication of any immedia If applicable and available it will		pecial treatm	ent needed						
CTION 5: Firefighting n	neasures								
5.1. Extinguishing media									
5.1.1 Suitable extinguishing media Polyvalent foam. ABC powder.									
5.1.2 Unsuitable extinguishing me									
No unsuitable extinguishing me									
5.2. Special hazards arising fro	m the substance or mixtur CO, CO2 and small quantities of n								
5.3. Advice for firefighters									
No specific fire-fighting instruct	ions required.								
5.3.2 Special protective equipmen Gloves. Protective clothing. Hea	t for fire-fighters: t/fire exposure: compressed air/o	xygen apparatus.							
CTION 6: Accidental re	lease measures								
6.1. Personal precautions, pro	tective equipment and em	ergency proce	edures						
6.1.1 Protective equipment for no	n-emergency personnel								
See heading 8.2									
6.1.2 Protective equipment for em	ergency responders								
son for revision: 8.2			Publication da Date of revisio	te: 2014-10-01					
			Date of revisio						
sion number: 0102			Droduct numb						

Revision number: 0103

Product number: 55273

2/12

			Silirub 2		
Gloves. Protective clo Suitable protective clothi See heading 8.2	-				
6.2. Environmental preca Contain released product. Us		e containment to avoid er	vironmental contam	ination.	
6.3. Methods and materi	al for cont	ainment and cleanir	ng up	n. Wash clothing and equipment aft	er handling.
6.4. Reference to other s See heading 13.	ections				
CTION 7: Handling The information in this section is scenarios that correspond to yo	s <mark>a general de</mark>	scription. If applicable and	l available, exposure	scenarios are attached in annex. Alv	vays use the relevant exposure
7.1. Precautions for safe Keep away from naked flame		rve strict hygiene. Keep c	ontainer tightly close	d.	
 7.2. Conditions for safe s 7.2.1 Safe storage requirem Store in a dry area. Store 7.2.2 Keep away from: Heat sources. 7.2.3 Suitable packaging ma Synthetic material. 7.2.4 Non suitable packagin 	ents: at room temp terial:	luding any incompa		torage time: 1 year(s).	
No data available	y material.				
7.3. Specific end use(s) If applicable and availabl	e, exposure so	cenarios are attached in a	nnex. See informatio	n supplied by the manufacturer.	
ECTION 8: Exposure	control	s/personal pro	tection		
8.1. Control parameters 8.1.1 Occupational exposure <u>a) Occupational exposur</u>	e limit values		low.		
If limit values are applica					
If limit values are applica Germany Butanonoxim				age exposure limit 8 h (TRGS 900)	0.3 ppm
Germany Butanonoxim b) National biological lin If limit values are applica 8.1.2 Sampling methods	n <mark>it values</mark> ble and availa	ble these will be listed be	Time-weighted aver	age exposure limit 8 h (TRGS 900) age exposure limit 8 h (TRGS 900)	0.3 ppm 1 mg/m³
Germany Butanonoxim b) National biological lin If limit values are applica 8.1.2 Sampling methods If applicable and availabl 8.1.3 Applicable limit values	n <u>it values</u> ble and availa e it will be list : w hen using l	ble these will be listed be ed below. i he substance or mixture	Time-weighted aver low. as intended		
Germany Butanonoxim b) National biological lin If limit values are applica 8.1.2 Sampling methods If applicable and availabl 8.1.3 Applicable limit values	n <u>it values</u> ble and availa e it will be list : w hen using l	ble these will be listed be ed below.	Time-weighted aver low. as intended		
Germany Butanonoxim b) National biological lin If limit values are applica 8.1.2 Sampling methods If applicable and availabl 8.1.3 Applicable limit values If limit values are applica 8.1.4 DNEL/PNEC values DNEL/DMEL - Workers 2-butanone oxime	h <mark>it values</mark> ble and availa e it will be list w hen using t ble and availa	ble these will be listed be ed below. t he substance or mixture ble these will be listed be	Time-weighted aver low. as intended	age exposure limit 8 h (TRGS 900)	1 mg/m³
Germany Butanonoxim b) National biological lin If limit values are applica 8.1.2 Sampling methods If applicable and availabl 8.1.3 Applicable limit values If limit values are applica 8.1.4 DNEL/PNEC values DNEL/DMEL - Workers	h <mark>it values</mark> ble and availa e it will be list w hen using t ble and availa	ble these will be listed be ed below. i he substance or mixture	Time-weighted aver ow. as intended ow.		
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Germany Butanonoxim b) National biological lin If limit values are applica 8.1.2 Sampling methods If applicable and availabl 8.1.3 Applicable limit values If limit values are applica 8.1.4 DNEL/PNEC values DNEL/DMEL - Workers 2-butanone oxime Effect level (DNEL/DM	hit values ble and availa e it will be list when using t ble and availa EL)	ble these will be listed be ed below. the substance or mixture ble these will be listed be Type Long-term systemic effect Long-term local effects in Long-term systemic effect	Time-weighted aver low. as intended low. ts inhalation halation ts dermal	age exposure limit 8 h (TRGS 900) Value 9 mg/m³ 3.33 mg/m³ 1.3 mg/kg bw/day	1 mg/m³
Germany Butanonoxim b) National biological lim If limit values are applica 8.1.2 Sampling methods If applicable and availabl 8.1.3 Applicable limit values If limit values are applica 8.1.4 DNEL/PNEC values <u>DNEL/DMEL - Workers</u> <u>2-butanone oxime</u> Effect level (DNEL/DM DNEL	hit values ble and availa e it will be list when using t ble and availa EL)	ble these will be listed be ed below. the substance or mixture ble these will be listed be Long-term systemic effect Long-term local effects in Long-term systemic effect Acute systemic effects de	Time-weighted aver low. as intended low. ts inhalation halation ts dermal rmal	age exposure limit 8 h (TRGS 900) Value 9 mg/m ³ 3.33 mg/m ³	1 mg/m³
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Germany Butanonoxim b) National biological lin If limit values are applica 8.1.2 Sampling methods If applicable and availabl 8.1.3 Applicable limit values If limit values are applica 8.1.4 DNEL/PNEC values DNEL/DMEL - Workers 2-butanone oxime Effect level (DNEL/DM DNEL hvdrocarbons, C13-C23,	nit values ble and availa e it will be list when using t ble and availa ble and availa EL)	ble these will be listed be ed below. the substance or mixture ble these will be listed be Ung-term systemic effect Long-term local effects in Long-term systemic effect Acute systemic effects de alkanes, cyclics, <0.03% ar	Time-weighted aver low. as intended low. ts inhalation halation ts dermal rmal	age exposure limit 8 h (TRGS 900) Value 9 mg/m³ 3.33 mg/m³ 1.3 mg/kg bw/day 2.5 mg/kg bw/day	1 mg/m ³
Germany Butanonoxim b) National biological lin If limit values are applica 8.1.2 Sampling methods If applicable and availabl 8.1.3 Applicable limit values If limit values are applica 8.1.4 DNEL/PNEC values DNEL/DMEL - Workers 2-butanone oxime Effect level (DNEL/DM DNEL hydrocarbons, C13-C23, Effect level (DNEL/DM	nit values ble and availa e it will be list when using t ble and availa ble and availa EL)	ble these will be listed be ed below. the substance or mixture ble these will be listed be Ung-term systemic effect Long-term local effects in Long-term systemic effect Acute systemic effects de alkanes, cyclics, <0.03% ar	Time-weighted aver low. as intended low. ts inhalation halation ts dermal rmal	age exposure limit 8 h (TRGS 900) Value 9 mg/m³ 3.33 mg/m³ 1.3 mg/kg bw/day 2.5 mg/kg bw/day	1 mg/m³

Effect level (DNEL/DMEL)	Туре		Value	Remark
DNEL	Long-term systemic	effects inhalation	2.7 mg/m³	
	Long-term local effe	ects inhalation	2 mg/m³	
	Long-term systemic	effects dermal	0.78 mg/kg bw/day	
	Acute systemic effe	<mark>cts de</mark> rmal	1.5 mg/kg bw/day	
ydrocarbons, C13-C23, n-alkane	s, isoalkanes, cyclics, <0.0	03% aromatics		
Effect level (DNEL/DMEL)	Туре		Value	Remark
				no data available
NEC				
-butanone oxime				
Compartments	Val	ue	Remark	
Fresh water	0.2	56 mg/l		
Aqua (intermittent relea <mark>ses)</mark>	0.1	18 mg/l		
STP	177	7 mg/l		
ydrocarbons, C13-C23, n-alkane	s, isoalkanes, cyclics, <0.0	03% aromatics		
Compartments	Val	ue	Remark	
			no data a	vailable
Control banding				
applicable and available it will b	e listed below			

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe strict hygiene. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

Respiratory protection not required in normal conditions.

- b) Hand protection: Gloves.
- materials (good resistance)
- Polyethylene. <u>c) Eye protection:</u>
- Safety glasses.
- d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Odour Characteristic odour Odour threshold no data available Colour Variable in colour, depending on the composition Particle size no data available Explosion limits no data available Flammability Not easily combustible Log Kow Not applicable (mixture) Dynamic viscosity no data available Kinematic viscosity no data available Boiling point no data available Flash point no data available Flash point no data available Relative vapour density no data available Vapour pressure no data available Solubility Not applicable (mixture) Vapour pressure no data available Feative density no data available Flash point > 200 °C Evaporation rate no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0; 20 °C Publication date: 2014-10-01 Date of revision: 2017-03-13 <	Physical form	Paste Paste
Colour Variable in colour, depending on the composition Particle size no data available Explosion limits no data available Flammability Not easily combustible Log Kow Not applicable (mixture) Dynamic viscosity no data available Kinematic viscosity no data available Melting point no data available Boiling point no data available Flash point > 200 °C Evaporation rate no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C For revision: 8.2 Publication date: 2014-10-01	Odour	Characteristic odour
Particle size no data available Explosion limits no data available Flammability Not easily combustible Log Kow Not applicable (mixture) Dynamic viscosity no data available Kinematic viscosity no data available Melting point no data available Boiling point no data available Flash point no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C For revision: 8.2 Publication date: 2014-10-01	Odour threshold	no data available
Explosion limits no data available Flammability Not easily combustible Log Kow Not applicable (mixture) Dynamic viscosity no data available Kinematic viscosity no data available Melting point no data available Boiling point no data available Flash point no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C For revision: 8.2 Publication date: 2014-10-01	Colour	Variable in colour, depending on the composition
Flammability Not easily combustible Log Kow Not applicable (mixture) Dynamic viscosity no data available Kinematic viscosity no data available Melting point no data available Boiling point no data available Flash point > 200 °C Evaporation rate no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C For revision: 8.2 Publication date: 2014-10-01	Particle size	no data available
Log Kow Not applicable (mixture) Dynamic viscosity no data available Kinematic viscosity no data available Melting point no data available Boiling point no data available Boiling point no data available Flash point > 200 °C Evaporation rate no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C For revision: 8.2 Publication date: 2014-10-01	Explosion limits	no data available
Dynamic viscosity no data available Kinematic viscosity no data available Melting point no data available Boiling point no data available Flash point > 200 °C Evaporation rate no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C For revision: 8.2 Publication date: 2014-10-01	Flammability	Not easily combustible
Kinematic viscosity no data available Melting point no data available Boiling point no data available Flash point > 200 °C Evaporation rate no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C or revision: 8.2 Publication date: 2014-10-01	Log Kow	Not applicable (mixture)
Melting point no data available Boiling point no data available Flash point > 200 °C Evaporation rate no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C	Dynamic viscosity	no data available
Boiling point no data available Flash point > 200 °C Evaporation rate no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C	Kinematic viscosity	no data available
Flash point > 200 °C Evaporation rate no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C	Melting point	no data available
Evaporation rate no data available Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C For revision: 8.2 Publication date: 2014-10-01	Boiling point	no data available
Relative vapour density no data available Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C	Flash point	> 200 °C
Vapour pressure no data available Solubility water ; insoluble Relative density 1.0 ; 20 °C For revision: 8.2 Publication date: 2014-10-01	Evaporation rate	no data available
Solubility water ; insoluble Relative density 1.0 ; 20 °C For revision: 8.2 Publication date: 2014-10-01	Relative vapour density	no data available
Relative density 1.0 ; 20 °C For revision: 8.2 Publication date: 2014-10-01	Vapour pressure	no data available
For revision: 8.2 Publication date: 2014-10-01	Solubility	water ; insoluble
	Relative density	1.0; 20 °C
Date of revision: 2017-03-13	or revision: 8.2	Publication date: 2014-10-01
		Date of revision: 2017-03-13
Drumber: 0102 Dreduct number: EE272		Droduct number: EE272

Revision number: 0103

Product number: 55273

	Decomposition temperation	ure	no data available				
	Auto-ignition temperature	е	no data availa <mark>b</mark> le				
	Explosive properties		No chemical group associated with explosive properties				
	Oxidising properties		No chemical group associated with oxidising properties				
	рН		no data availa <mark>b</mark> le				
9.2. O	ther information						
	Surface tension		<mark>no data availa</mark> ble				
	Saturation concentration		no data available				
	Absolute density		1000 kg/m³ ; 20 °C				

SECTION 10: Stability and reactivity

10.1. Reactivity

Temperature above flashpoint: higher fire/explosion hazard.

10.2. Chemical stability Stable under normal conditions.

10.3. Possibility of hazardous reactions No data available.

10.4. Conditions to avoid

Keep away from naked flames/heat.

10.5. Incompatible materials No data available.

10.6. Hazardous decomposition products

Upon combustion: forma<mark>tion of CO, CO2 and small quantities o</mark>f nitrous vapours.

SECTION 11: Toxicological information

11.1.1 Information on toxicological effects 11.1.1 Test results

Acute toxicity

<u>Silirub 2</u>

No (test)data on the mixture available

Route of exposure	Para	meter	Method	Value	Exposure time		Value determination	Remark
Oral	LD50)	Equivalent to OECD 401	2326 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50)	Equivalent to OECD 402	> 1000 mg/kg bw		Rabbit (male/female)	Experimental value	
Inhalation (vapours)	LC50		Equivalent to OECD 403	> 4.83 mg/l air	4 h	Rat (male/female)	Experimental value	

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Route of exposure	Parameter	Method	Value	Exposure time		Value determination	Remark
Oral	LD50	OECD 401	<mark>> 5000 m</mark> g/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	OECD 402	> 3160 mg/kg bw	24 h	Rabbit (male/female)	Experimental value	
Inhalation (aerosol)	LC50	OECD 403	<mark>> 5266 m</mark> g/m³ air	4 h	Rat (male/female)	Experimental value	

Judgement is based on the relevant ingredients

Conclusion

Not classified for acute toxicity

Corrosion/irritation

<u>Silirub 2</u>

	Route of exposure	Result		Method	Exposu	re time	Time point		Value determination	Remark
		Not irrita	iting	OECD 437		- 7			Experimental value	
		Not irrita	iting						Expert judgement	
Reaso	on for revision: 8.2						Р	ublication date: 2014	1-10-01	
							D	ate of revision: 2017	-03-13	
Revis	ion number: 0103						Р	roduct number: 552	73	5/12

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious <mark>eye</mark> damage	Equivalent to OECD 405		24; 72 hours	Rabbit	Experimental value	Single treatmer
Skin	Slightly <mark>irritating</mark>	Other	24 h	1; 24; 48; 72 hours	Rabbit	Experimental value	
drocarbons, C13-C23	3, n-alka <mark>nes, isoalka</mark>	nes, cyclics, <0.03% a	aromatics				•
Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
	Not irritating	OECD 405	24 h	24; 48; 72 hours	Rabbit	Experimental value	
Eye	- to c in the data B						
Eye Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

<u>Silirub 2</u>

No (test)data on the mixture available

2-butanone oxime

Route of exposure	Result	Method		Observation time point	Species	Value determination	Remark
Skin		Equivalent to OECD 406	24 h		Guinea pig (female)	Experimental value	

hydrocarbons, C13-C23, n-alka<mark>nes, isoalkanes, cyclics, <0.03% aromat</mark>ics

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sens <mark>itizing</mark>	OECD 406	24 h	24; 48 hours	Guinea pig (female)	Read-across	
Skin	Not sensitizing	Other	216 h	,	Human (male/female)	Experimental value	
ludgement is based o	n the relevant ing	edients					

Conclusion

Not classified as sensitizing for inhalation

Not classified as sensitizing for skin

Specific target organ toxicity

Silirub 2

No (test)data on the mixture available

Reason for revision: 8.2

Publication date: 2014-10-01 Date of revision: 2017-03-13

Route of exposure	Paramete	r Method	Value	Organ	Effect	Exposure time	Species	Value determinatior
Oral	LOAEL	US EPA	40 mg/kg bw/day	General	Clinical signs; mortality; body weight; food consumption	13 weeks (5 days/week)	Rat (male/female)	Experimental value
Oral	NOAEL	US EPA	< 40 mg/kg bw/day	Blood	Change in the haemogramme/ blood composition	13 weeks (5 days/week)	Rat (male/female)	Experimental value
Oral	NOEL	US EPA	125 mg/kg bw/day	Central nervous system		13 weeks (5 days/week)	Rat (male/female)	Experimental value
Oral	NOAEL	US EPA	312 ppm	Blood	Change in the haemogramme/ blood composition	13 week(s)	Rat (female)	Experimental value
Oral	NOAEL	US EPA	625 ppm	Blood	Change in the haemogramme/ blood composition	13 week(s)	Rat (male)	Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 412	90 mg/m³ air	Blood	Change in the haemogramme/ blood composition	4 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	Equivalent to OECD 408	≥ 5000 mg/kg bw/day		No effect	, , ,	Rat (male/female)	Read-across
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	> 10400 mg/m³ air			13 weeks (6h/day, 5 days/week)	Rat (male/female)	Read-across

Judgement is based on the relevant ingredients

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

<u>Silirub 2</u>

No (test)data on the mixture available

2-butanone oxime

ymphoma L5178Y (S.typhimurium)	Experimental value Experimental value
(S.typhimurium)	Experimental value
···/····/	experimental value
cells	Experimental value
strate Effect	ect Value determinatio
	Experimental value
	(S.typhimurium)

Mutagenicity (in vivo)

<u>Silirub 2</u>

No (test)data on the mixture available

2-butanone oxime

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Other	3 day(s)	Drosophila melanogaster (male)	Male reproductive organ	Experimental value
Negative	Other		Rat (male/female)		Experimental value
drocarbons, C13-C23, n-all	kan <mark>es, isoalkanes, cyclics, <0.0</mark>	3% aromatics			
Result	Method	Exposure time	Test substrate	Organ	Value determinati
Negative	Equivalent to OE 483	CD 8 weeks (6h/day, 5 days/week)	Mouse (male)		Read-across
Negative	Equivalent to OE 475	CD	Rat (male/female)		Read-across
Negative	Equivalent to OE 474	CD	Mouse (male/female)		Read-across
for revision: 8.2			Publication dat	e: 2014-10-01	
			Date of revisior	n: 2017-03-13	

Revision number: 0103

Product number: 55273

					S	Siliru	ub 2				
Judgemer	ent is based on	the relev	ant ingredier	nts							
Conclusion	_			i cita (
	ified for muta	genic or g	enotoxic toxi	icity							
rcinogenicity	ty										
<u>Silirub 2</u> No (test)d	data on the m	ixture ava	ailable								
<u>2-butanor</u>			and bre				-				
Route expos		meter	Method	Value	E	Exposure	time S	pecies	Effect	Organ	Value determinatio
Inhala (vapo	ation NOA	EC	EPA OTS 798.3300	0.27 mg/l		≥ 1 year(s days/wee	s) (6h/day, 5 R ek)		No carcinogenic effect		Experimental value
Inhala		elevel	EPA OTS	374 ppm			s) (6h/day, 5 R	at	Carcinogenicity	Liver	Experimental
(vapo Judgemer	ent is based on	the relev	798.3300 /ant ingredier	nts	0	days/wee	ek)				value
productive t ilirub 2	- ified for carcir										
<u>2-butanor</u>	one oxime	Pa	rameter	Method	Value		Exposure time	e Species	Effect	Organ	Value determinatio
Devel	lopmental tox	icity NC	DAEL (F1)	OECD 414	600 mg/		10 day(s)	Rat	No effect		Experimental
		LO	DAEL (P)	OECD 414	bw/day 60 mg/k bw/day	g	10 day(s)	Rat	Spleen enlargement/af ection	Spleen f	Experimental value
Effect	ts on fertility	NC	DAEL	US EPA	≥ 200 m	g/kg/d		Rat			Experimental
bydrocarl	hons (13-(73	2 n-alkan	es isoalkane	s, cyclics, <0.03%	aromati			(male/female)			value
Inverteent	00113, CIS-CZ		rameter	Method	Value		Exposure time	e Species	Effect	Organ	Value
Devel	lopmental tox	icity NC	DAEL	Equivalent to OECD 414	> 1000 r bw/day		10 day(s)	Rat	No effect		determinatio Experimental value
Effect	ts on fertility	NC	DAEC	Equivalent to OECD 416	≥ 1500 p		13 weeks (6h/day, 5 days/week)	Rat (male/female)	No effect		Read-across
		NC	DAEC	Equivalent to OECD 421	≥ 300 pr	om	8 weeks (6h/day, 5 days/week)	Rat (male/female)	No effect		Read-across
			DAEL	Equivalent to OECD 422	> 1000 r bw/day		6 weeks (daily) Rat (male/female)	No effect		Read-across
	ent is based on	the relev	ant ingredier	nts							
	-	toxic or d	levelopmenta	al toxicity							
Conclusion	lified for repro										
Conclusion Not classi	•										
Conclusion Not classi xicity other o	•										
Conclusion Not classi xicity other of Silirub 2	•	ixture ava	ailable								
Conclusion Not classi xicity other of illirub 2 No (test)d	effects			re							
Conclusion Not classi xicity other of Silirub 2 No (test)o ronic effects	effects data on the m			re							
Conclusion Not classi xicity other of illirub 2 No (test)c ronic effects illirub 2	effects data on the m s from short a	nd long-t	term exposur	re NTACT: Skin rasł	/inflamm	nation.					
Conclusion Not classi xicity other of iilirub 2 No (test)c ronic effects iilirub 2 ON CONT	effects data on the m s from short a TINUOUS/REP	nd long-t	term exposur (POSURE/COI	NTACT: Skin rash	ı/inflamm	nation.					
Conclusion Not classi xicity other of iilirub 2 No (test)c ronic effects iilirub 2 ON CONT	effects data on the m s from short a TINUOUS/REP 12: ECO	nd long-t	term exposur (POSURE/COI	NTACT: Skin rash	ı/inflamm	nation.					
Conclusion Not classi xicity other of Silirub 2 No (test)of ronic effects Silirub 2 ON CONT CTION 12.1. Tox Silirub 2	effects data on the m s from short a TINUOUS/REP 12: ECO	nd long-t EATED EX <mark>Ogica</mark>	term exposur «POSURE/COI al inforn	NTACT: Skin rash	ı/inflamm	ation.					
Conclusion Not classi xicity other of Silirub 2 No (test)d ronic effects Silirub 2 ON CONT CTION 12.1. Tox Silirub 2	effects data on the m s from short a TINUOUS/REP 12: ECO xicity	nd long-t EATED EX <mark>Ogica</mark>	term exposur «POSURE/COI al inforn	NTACT: Skin rash	ı/inflamm	ation.					
Conclusion Not classi xicity other of Silirub 2 No (test)of ronic effects Silirub 2 ON CONT CTION 12.1. Tox Silirub 2	effects data on the m s from short a TINUOUS/REP 12: ECO xicity ata on the mix	nd long-t EATED EX <mark>Ogica</mark>	term exposur «POSURE/COI al inforn	NTACT: Skin rash	ı/inflamm	nation.			on date: 2014-10-0 evision: 2017-03-13		

2-butanone oxime								
	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 100 mg/l	96 h	Oryzias latipes	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	OECD 202	201 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	OECD 201	11.8 mg/l	72 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value; GLP
	NOEC	OECD 201	2.56 mg/l	72 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEC	OECD 204	≥ 100 mg/l	14 day(s)	Oryzias latipes	Flow-through system	Fresh water	Experimental value; GLP
Long-term toxicity aquatic crustacea	NOEC	OECD 211	≥ 100 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
nydrocarbons, C13-C23, n-alkanes	, isoalkanes, c	vclics, <0.03%	aromatics					
	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt	Value determination

	Parameter	Nethod	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 1028 mg/l	96 h	Scophthalmus maximus			Experimental value
Acute toxicity crustacea	LC50	Other	<mark>> 319</mark> 3 mg/l	48 h	Acartia tonsa			Experimental value
Toxicity algae and other aquatic plants	ErC50	ISO 10253	> 10000 mg/l	72 h	Skeletonema costatum			Experimental value
Long-term toxicity fish	NOEL		> 1000 mg/l	28 day(s)	Oncorhynchus mykiss			QSAR
Long-term toxicity aquatic crustacea	NOEL		> 1000 mg/l	21 day(s)	Daphnia magna			QSAR
Toxicity aquatic micro- organisms	EC50	OECD 209	> 100 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value

Judgement of the mixture is based on the relevant ingredients

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Biodegradation water			
Method	Value	Duration	Value determination
OECD 306: Biodegradabilit <mark>y in Seawater</mark>	74 %	28 day(s)	Experimental value
Phototransformation water (DT50 water)			
Method	Value	Conc. OH-radicals	Value determination
	No effect		
Half-life soil (t1/2 soil)	<u>.</u>		
Method	Value	Primary degradation/mineralisation	Value determination
	No effect		

Conclusion

Contains readily biodegradable component(s)

12.3. Bioaccumulative potential

<u>Silirub 2</u>

og Kow Method		Remark		Value	Te	emperature	Value d	etermination	
		Not applica	able (mixture)						
2-butanone oxime									
BCF fishes									
Parameter	Metho	d	Value	Duration	Species	5	l l	alue determination	1
BCF	OECD 3	305	0.5 - 5.8; GLP	42 day(s)	Cyprinu	is carpio	E	xperimental value	
Log Kow									
Method		Remar	ĸ	Value		Temperature	Valu	e determination	
OECD 117				0.63			Expe	rimental value	
on for revision: 8.2						Publication date:	: 2014-10-01		
						Date of revision:	2017-03-13		
ion number: 0103						Product number	. 55272		9

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Lo	og Kow				
	Method	Remark	Value	Temperature	Value determination
		no data available			
Conc	usion				
Doe	es not contain bioaccumulati	ve component(s)			
12.4	. Mobility in soil				
<u>2-bi</u>	utanone oxime				
(lo	og) Koc				
	Parameter		Method	Value	Value determination
	log Koc		SRC PCKOCWIN v2.0	0.55	QSAR

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Percent distribution

Method	Fraction air	 Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	8.3 %	83.2 %	7.4 %	1%	Calculated value

Conclusion

Contains component(s) with potential for mobility in the soil

Contains component(s) that adsorb(s) into the soil

12.5. Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

Silirub 2

Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

2-butanone oxime

Ground water

Ground water pollutant

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

08 04 10 (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants other than those mentioned in 08 04 09). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Dissolve or mix with a combustible solvent. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC). 15 01 02 (plastic packaging).

SECTION 14: Transport information

Transport	Not subject	
14.2. UN proper shipping name		
14.3. Transport hazard class(es)		
Hazard identification number		
Class		
son for revision: 8.2	Publication date: 2014-10-01	
	Date of revision: 2017-03-13	

			i			
Classification code						
14.4. Packing group						
Packing group				_		
Labels						
14.5. Environmental hazards				_		
Environmentally hazardo	us substance mark		no			
14.6. Special precautions for	user					
Special provisions				_		
Limited quantities						
14.7. Transport in bulk accord	ding to Annex II of Marpol and the IBC C	Code				
Annex II of MARPOL 73/7	8					
FION 15: Regulate	ory information					
5.1. Safety, health and e	nvironmental regulations/legi	slation s	pecific for the subst	ance or mixt	ure	

European legislation:

S

VOC content Directive 2010/75/EU

	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
VOC content		Remark	
<1%			
< 10 g/l			

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

Date of revision: 2017-03-13		bus substances, mixtures and articles.	
Silirub 2 No data available National legislation The Netherlands Silirub 2 No data available National legislation France Silirub 2 No data available National legislation Germany Silirub 2 Publication date: 2014-10-01 Date of revision: 2017-03-13	· hydrocarbons, C13-C23, n-alkanes,	regarded as dangerous in accordanc Directive 1999/45/EC or are fulfilling for any of the following hazard class categories set out in Annex I to Reg No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and types A and B, 2.9, 2.10, 2.12, 2.13 c and 2, 2.14 categories 1 and 2, 2.15 F; (b) hazard classes 3.1 to 3.6, 3.7 adv on sexual function and fertility or or development, 3.8 effects other thar effects, 3.9 and 3.10; (c) hazard class 4.1;	 e with - ornamental articles intended to produce light or colour effects by means of different the criteria phases, for example in ornamental lamps and ashtrays, es or - tricks and jokes, - games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: - can be used as fuel in decorative oil lamps for supply to the general public, and, - present an aspiration hazard and are labelled with R65 or H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of famp oil — or even sucking the wick of lamps — may lead to life threatening lung damage"; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; <li< td=""></li<>
Silirub 2 No data available National legislation France Silirub 2 No data available National legislation Germany Silirub 2 Silirub 2 Reason for revision: 8.2 Publication date: 2014-10-01 Date of revision: 2017-03-13	<u>Silirub 2</u>		
No data available National legislation France Silirub 2 No data available National legislation Germany Silirub 2	National legislation The Netl	nerlands	
Silirub 2 No data available National legislation Germany Silirub 2 Reason for revision: 8.2 Publication date: 2014-10-01 Date of revision: 2017-03-13			
No data available National legislation Germany Silirub 2 Reason for revision: 8.2 Publication date: 2014-10-01 Date of revision: 2017-03-13	National legislation France		
Silirub 2 Reason for revision: 8.2 Publication date: 2014-10-01 Date of revision: 2017-03-13			
Reason for revision: 8.2 Publication date: 2014-10-01 Date of revision: 2017-03-13	National legislation German	£	
Date of revision: 2017-03-13	<u>Silirub 2</u>		
Revision number: 0103 Product number: 55273 11 / 12	Reason for revision: 8.2		
	Revision number: 0103		Product number: 55273 11 / 12

	Silirub 2
WGK	1; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)
2-butanone oxime TA-Luft	5.2.5; I
TRGS900 - Risiko der Fruchtschädigung	Butanonoxim; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Sensibilisierende Stoffe	
Hautresorptive Stoffe	Butanonoxim; H; Hautresorptiv
<u>National legislation United I</u> <u>Silirub 2</u> No data available	
Other relevant data	
<u>Silirub 2</u> No data available	
15.2 Chamical safaty ass	osement
15.2. Chemical safety ass No chemical safety asses	sessifient has been conducted for the mixture.
ECTION 16: Other in	formation
Full text of any H-statement	ts referred to under headings 2 and 3:
	allowed and enters airways.
H312 Harmful in contac H317 May cause an alle	
H317 May cause an alle H318 Causes serious ey	
H351 Suspected of cause	
(*)	NTERNAL CLASSIFICATION BY BIG
· · · ·	Classification, labelling and packaging (Globally Harmonised System in Europe)
	Derived Minimal Effect Level
	Derived No Effect Level
	iffect Concentration 50 %
	C50 in terms of reduction of growth rate
LC50 L	ethal Concentration 50 %
LD50 L	ethal Dose 50 %
NOAEL N	No Observed Adverse Effect Level
NOEC N	No Observed Effect Concentration
OECD C	Or <mark>ganisation for Economic Co-operation</mark> and Development
PBT P	Pe <mark>rsistent, Bioaccumulative & Toxic</mark>
PNEC P	Predicted No Effect Concentration
STP S	ludge Treatment Process
vPvB v	re <mark>ry Persistent & very Bioaccumulative</mark>
state of knowledge at the the substances/preparat used. Old versions must substances/preparations substances/preparations all measures dictated by BIG does not guarantee t sheet has been elaborate local legislation with rega safety data sheet is subje	afety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the at time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of ions/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to some sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet of the set-up of safety data sheets will take precedence. It is your obligation to verify and apply such local legislation. Use of this content is sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned or details.

Reason for revision: 8.2

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Publication date: 2014-10-01 Date of revision: 2017-03-13

Revision number: 0103