

Trade name: Rolot S2 Product no.: 40212, 40213, 100000134 Current version : 3.0.0, issued: 28.04.2021

Replaced version: 2.0.0, issued: 07.11.2019

Region: GB

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

1.1 Product identifier

Trade name

Rolot S2

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

Relevant identified uses of the substance or mixture solder wire Uses advised against No data available.

1.3 Details of the supplier of the safety data sheet

Address

ROTHENBERGER Werkzeuge GmbH Industriestraße 7 65779 Kelkheim

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 Fax no.
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 info@rothenberger.com

Advice on Safety Data Sheet sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English): +49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP) Eye Irrit. 2; H319

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



 Signal word

 Warning

 Hazard statement(s)

 H319
 Causes serious eye irritation.

 Precautionary statement(s)

 P101
 If medical advice is needed, have product container or label at hand.

 P102
 Keep out of reach of children.

 P305+P351+P338
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

ROTHENBERGER

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Product no.: 40212, 40213, 100000134

Current version : 3.0.0, issued: 28.04.2021

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Region: GB

present and easy to do. Continue rinsing.

Labelling information

In the form in which it is marketed, the product causes no danger to health for humans through inhalation, swallowing or contact with the skin. There is therefore no obligation to label the product in accordance with: - regulation 1272/2008 (CLP: annex I; 1.3.4.: "Metals in massive form, alloys, mixtures containing polymers, mixtures containing elastomers).

2.3 Other hazards

PBT assessment No data available. vPvB assessment

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

No	Substance name	Substance name		tional informati	on	
	CAS / EC / Index /	Classification (EC) 1272/2008 (CLP)	Cond	entration		%
	REACH no					
1	potassium-tetraflu	oroborate				
	14075-53-7	-	>=	50.00 - <	70.00	wt%
	237-928-2					
	-					
	01-2119968922-24					
2	silver					
	7440-22-4	-	>=	10.00 - <	25.00	wt%
	231-131-3					
	-					
	01-2119555669-21					
3	red phosphorus					
	7723-14-0	Aquatic Chronic 3; H412	>=	10.00 - <	25.00	wt%
	231-768-7	Flam. Sol. 1; H228				
	015-002-00-7					
	-					
4	boric acid					
	10043-35-3	Repr. 1B; H360FD	>=	5.00 - <	10.00	wt%
	233-139-2					
	005-007-00-2					
	01-2119486683-25					
5	dipotassium tetrab					
	12045-78-2	Repr. 2; H361fd	>=	5.00 - <	10.00	wt%
	215-575-5					
	-					
	01-2119970730-37					
6	potassium fluoride					
	7789-23-3	Acute Tox. 3; H301	<	5.00		wt%
	232-151-5	Acute Tox. 3; H311				
	009-005-00-2	Acute Tox. 3; H331				
	01-2119555273-40 Text for all H-phrases	j , <u>-</u> -				

Full Text for all H-phrases and EUH-phrases: pls. see section 16

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
4	-	Repr. 1B; H360FD: C >= 5.5%	-	-
5	-	Repr. 2; H361: C >= 5.8%	-	-



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Product no.: 40212, 40213, 100000134

Current version : 3.0.0, issued: 28.04.2021

Replaced version: 2.0.0, issued: 07.11.2019

Acu	Acute toxicity estimate (ATE) values				
No	oral	dermal	inhalative		
6	1485 mg/kg bodyweight		1 mg/l		

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated clothing and shoes and launder thoroughly before reusing. In case of persisting adverse effects, consult a physician.

After inhalation

Ensure supply of fresh air. Remove affected person from the immediate area. In case of persisting adverse effects consult a physician.

After skin contact

In case of contact with skin wash off with plenty of water. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Get immediate ophthalmic treatment.

After ingestion

Rinse the mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor.

4.2 Most important symptoms and effects, both acute and delayed No data available.

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

Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture No data available.

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid dust formation.

For emergency responders

Personal protective equipment (PPE) - see section 8.

6.2 Environmental precautions Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up Take up mechanically. When collected, handle material as described under the section heading "Disposal considerations".

6.4 Reference to other sections

ROTHENBERGER

Trade name: Rolot S2

Product no.: 40212, 40213, 100000134

Current version : 3.0.0, issued: 28.04.2021

Replaced version: 2.0.0, issued: 07.11.2019

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances. Provide good ventilation at the work area (local exhaust ventilation, if necessary). Avoid eye, skin and clothing contact. Avoid the formation and deposition of dust. Do not breathe steams or mist of the product.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Do not inhale dust. Remove contaminated clothing and shoes and launder thoroughly before reusing.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place.

Requirements for storage rooms and vessels

Always keep in containers of same material as the original. Containers which are opened must be carefully closed and kept upright to prevent leakage.

Incompatible products

Substances to be avoided, see section 10.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.		EC no.
1	potassium-tetrafluoroborate	14075-53-7		237-928-2
	2000/39/EC			
	Fluorides, inorganic			
	WEL long-term (8-hr TWA reference period)	2.5	mg/m³	
	List of approved workplace exposure limits (WELs) /	EH40		
	Fluoride (inorganic, as F)			
	WEL long-term (8-hr TWA reference period)	2.5	mg/m³	
2	silver	7440-22-4		231-131-3
	List of approved workplace exposure limits (WELs) /	' EH40		
	Silver (metallic)			
	WEL long-term (8-hr TWA reference period)	0.1	mg/m³	
	2000/39/EC			
	Silver, metallic	-		
	WEL long-term (8-hr TWA reference period)	0.1	mg/m³	
3	red phosphorus	7723-14-0		231-768-7
	List of approved workplace exposure limits (WELs) /	' EH40		
	Phosphorus, yellow			
	WEL short-term (15 min reference period)	0.3	mg/m³	
	WEL long-term (8-hr TWA reference period)	0.1	mg/m³	
4	potassium fluoride	7789-23-3		232-151-5
	2000/39/EC			
	Fluorides, inorganic	-		
	WEL long-term (8-hr TWA reference period)	2.5	mg/m³	
	List of approved workplace exposure limits (WELs) /	EH40		



Trade name: Rolot S2

Product no.: 40212, 40213, 100000134

Current version : 3.0.0, issued: 28.04.2021

Replaced version: 2.0.0, issued: 07.11.2019

Region: GB

Fluoride (inorganic, as F)		
WEL long-term (8-hr TWA reference period)	2.5	mg/m³

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name			CAS / EC	no
	Route of exposure	Exposure time	Effect	Value	
1	boric acid			10043-35- 233-139-2	
	dermal	Long term (chronic)	systemic	392	mg/kg/day
	inhalative	Long term (chronic)	systemic	8.3	mg/m³
2	dipotassium tetraborat	e tetrahydrate		12045-78- 215-575-5	
	dermal	Long term (chronic)	systemic	367.7	mg/kg/day
	inhalative	Long term (chronic)	systemic	7.8	mg/m³
	inhalative	Short term (acut)	systemic	7.8	mg/m³
	inhalative	Long term (chronic)	local	13.6	mg/m³
	inhalative	Short term (acut)	local	13.6	mg/m³
3	potassium fluoride			7789-23-3 232-151-5	
	dermal	Long term (chronic)	systemic	0.44	mg/kg/day
	dermal	Short term (acut)	systemic	0.44	mg/kg/day
	inhalative	Long term (chronic)	systemic	3	mg/m³
	inhalative	Long term (chronic)	local	3	mg/m³
	inhalative	Short term (acut)	systemic	12	mg/m³
	inhalative	Short term (acut)	local	12	mg/m³

DNEL value (consumer)

No	Substance name			CAS / EC no)
	Route of exposure	Exposure time	Effect	Value	
1	boric acid	boric acid			
				233-139-2	
	oral	Short term (acut)	systemic	0.98	mg/kg/day
	oral	Long term (chronic)	systemic	0.98	mg/kg/day
	dermal	Long term (chronic)	systemic	196	mg/kg/day
	inhalative	Long term (chronic)	systemic	4.15	mg/m³

PNEC values

NI .				
No	Substance name		CAS / EC no	1
	ecological compartment	Туре	Value	
1	boric acid		10043-35-3	
			233-139-2	
	water	fresh water	2.9	mg/L
	water	marine water	2.9	mg/L
	water	Aqua intermittent	13.7	mg/L
	soil	-	5.7	mg/kg dry
				weight
	sewage treatment plant	-	10	mg/L
2	dipotassium tetraborate tetrahydrate		12045-78-2	
			215-575-5	
	water	fresh water	2.02	mg/L
	water	marine water	2.02	mg/L
	soil	-	5.4	mg/kg dry
				weight
	sewage treatment plant	-	10	mg/L
3	potassium fluoride		7789-23-3	
			232-151-5	
	water	fresh water	0.89	mg/L
	soil	-	11	mg/kg

Trade name: Rolot S2

Product no.: 40212, 40213, 100000134

Current version : 3.0.0, issued: 28.04.2021

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ROTHENBERGER

Region: GB

sewage treatment plant	-	51	mg/L

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, local exhaust at the work station if necessary.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified.

Respiratory fil	ter (gas) :	ABEK
Respiratory fil	ter (part):	P3

Eye / face protection

Safety glasses (EN 166)

Hand protection

In case of intensive contact, wear protective gloves (EN 374). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves. Welder gloves Appropriate Material Polychloroprene

Other

Chemical-resistant work clothes.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation	
solid	
Form/Colour	
solid	
red	
Odour	
odourless	
pH value	
No data available	
Boiling point / boiling range	
No data available	
Melting point/freezing point	
Value	650 - 810 °C
Source	supplier
Decomposition temperature	
No data available	
Flash point	
No data available	
Ignition temperature	
No data available	
Flammability	
No data available	
Lower explosion limit	



Product no.: 40212, 40213, 100000134

Current version : 3.0.0, issued: 28.04.2021

Replaced version: 2.0.0, issued: 07.11.2019

Region: GB

No data available	
Upper explosion limit	
No data available	
Vapour pressure	
No data available	
Relative vapour density	
No data available	
Relative density	
No data available	
Density	
Value	8.1 - 8.4 g/cm ³
Reference temperature	20 °C
Source	supplier
Solubility in water	
Source	supplier
Comments	insoluble
Solubility	
No data available	
Partition coefficient n-octanol/wate	er (log value)
No data available	
Viscosity	
No data available	
Particle characteristics	
No data available	
2 Other information	
Other information No data available.	
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SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use.

- **10.4 Conditions to avoid** No data available.
- **10.5 Incompatible materials** strong bases; strong acids
- **10.6 Hazardous decomposition products** No data available.

SECTION 11: Toxicological information

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

Ac	ute oral toxicity (result of the ATE calculation for the mixture)
No	Product Name
1	Rolot S2

Species



Trade name: Rolot S2 Product no.: 40212, 40213, 100000134 Current version : 3.0.0, issued: 28.04.2021

Replaced version: 2.0.0, issued: 07.11.2019

Region: GB

Com	nments				hod according to the
					CLP), Paragraph 3.1.3.6,
					hat imply a classification /
					e 3.1.1 defining the
		respective ca	ategories (ATE	oral > 2000 r	mg/kg).
Acu	te oral toxicity				
No	Substance name		CAS no.		EC no.
					233-139-2
1	boric acid		10043-35-3	2450	
LD5				3450	mg/kg bodyweight
Spe		rat			
Met		OECD 401			
Sou		CSR	40045 70 0		045 575 5
2	dipotassium tetraborate tetrahydrate		12045-78-2	2500	215-575-5
LD5		>		2500	mg/kg bodyweight
Spe		rat			
Met		OECD 401			
Sou		ECHA			
3	potassium fluoride		7789-23-3	440 -	232-151-5
LD5		unt		148.5	mg/kg bodyweight
Spe		rat	070 4400		
Met		EPA OPPTS	870.1100		
Sou	rce	ECHA			
Acu	te dermal toxicity (result of the ATE calc	ulation for th	e mixture)		
No			,		
1	Rolot S2				
Corr	iments	The result of	the applied cal	culation met	hod according to the
					CLP), Paragraph 3.1.3.6,
					hat imply a classification /
		I labelling of th	nis mixture acco	rding to table	e 3.1.1 defining the
			nis mixture acco ategories (ATE o		e 3.1.1 defining the 00 mg/kg).
	te dermal toxicity		ategories (ATE		00 mg/kg).
No	Substance name		ategories (ATE o		00 mg/kg). EC no.
No 1	Substance name boric acid	respective ca	ategories (ATE	dermal > 200	00 mg/kg). EC no. 233-139-2
No 1 LD5	Substance name boric acid 0	respective ca	ategories (ATE o		00 mg/kg). EC no.
No 1 LD5 Spe	Substance name boric acid 0 cies	<pre>respective ca > rabbit</pre>	ategories (ATE) CAS no. 10043-35-3	dermal > 200	00 mg/kg). EC no. 233-139-2
No 1 LD5 Spe Met	Substance name boric acid 0 cies nod	 respective ca rabbit U.S. EPA FIF 	ategories (ATE o	dermal > 200	00 mg/kg). EC no. 233-139-2
No 1 LD5 Spe Met Sou	Substance name boric acid 0 cies nod rce	<pre>respective ca > rabbit</pre>	CAS no. 10043-35-3	dermal > 200	00 mg/kg). EC no. 233-139-2 mg/kg bodyweight
No 1 LD5 Spe Met Sou 2	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate	 respective ca rabbit U.S. EPA FIF CSR 	ategories (ATE) CAS no. 10043-35-3	2000	00 mg/kg). EC no. 233-139-2 mg/kg bodyweight 215-575-5
No 1 LD5 Spe Metl Sou 2 LD5	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0	<pre>> respective ca > rabbit U.S. EPA FIF CSR ></pre>	CAS no. 10043-35-3	dermal > 200	00 mg/kg). EC no. 233-139-2 mg/kg bodyweight
No 1 LD5 Spe Metl Sou 2 LD5 Spe	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies	<pre>> respective ca > rabbit U.S. EPA FIF CSR > rabbit</pre>	CAS no. 10043-35-3	2000	00 mg/kg). EC no. 233-139-2 mg/kg bodyweight 215-575-5
No 1 LD5 Spe Metl Sou 2 LD5	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies	<pre>> respective ca > rabbit U.S. EPA FIF CSR ></pre>	CAS no. 10043-35-3	2000	00 mg/kg). EC no. 233-139-2 mg/kg bodyweight 215-575-5
No 1 LD5 Sper Metil Sour 2 LD5 Sper Sour	Substance name boric acid 0 cies nod cce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE	 respective ca rabbit U.S. EPA FIF CSR rabbit ECHA 	CAS no. 10043-35-3 RA Guidelines 12045-78-2	2000 2000	00 mg/kg). EC no. 233-139-2 mg/kg bodyweight 215-575-5
No 1 LD5 Sper Metil Sour 2 LD5 Sper Sour	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce	 respective ca rabbit U.S. EPA FIF CSR rabbit ECHA 	CAS no. 10043-35-3 RA Guidelines 12045-78-2	2000 2000	00 mg/kg). EC no. 233-139-2 mg/kg bodyweight 215-575-5
No 1 LD5 Spe Metl Sou LD5 Spe Sou	Substance name boric acid 0 cies nod cce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE	 respective ca rabbit U.S. EPA FIF CSR rabbit ECHA 	CAS no. 10043-35-3 RA Guidelines 12045-78-2	2000 2000	00 mg/kg). EC no. 233-139-2 mg/kg bodyweight 215-575-5
No 1 LD5 Spe Metl Sou LD5 Spe Sou No 1	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name	<pre>> respective ca > rabbit U.S. EPA FIF CSR > rabbit ECHA calculation f The result of</pre>	CAS no. 10043-35-3 RA Guidelines 12045-78-2	2000 2000	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight
No 1 LD5 Spe Metl Sou LD5 Spe Sou No 1	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2	<pre>> respective ca > rabbit U.S. EPA FIF CSR > rabbit ECHA calculation f European Result of European Resul</pre>	CAS no. 10043-35-3 RA Guidelines 12045-78-2 For the mixture the applied cal egulation (EC)	2000 2000 2000	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight
No 1 LD5 Spe Metl Sou LD5 Spe Sou No 1	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2	<pre>> respective ca > rabbit U.S. EPA FIF CSR > rabbit ECHA calculation f European Result of European Resul</pre>	CAS no. 10043-35-3 RA Guidelines 12045-78-2 For the mixture the applied cal egulation (EC)	2000 2000 2000	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight
No 1 LD5 Spe Metl Sou LD5 Spe Sou No 1	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2	 respective ca rabbit U.S. EPA FIF CSR rabbit ECHA calculation f The result of European Re Part 3 of Ann 	CAS no. 10043-35-3 RA Guidelines 12045-78-2 for the mixture the applied cal egulation (EC) nex I is outside	2000 2000 2000 2000 2000 2000 2000 200	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight
No 1 LD5 Spe Metl Sou LD5 Spe Sou No 1	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2	 respective ca rabbit U.S. EPA FIF CSR rabbit ECHA calculation f European Re Part 3 of Ann labelling of th 	CAS no. 10043-35-3 RA Guidelines 12045-78-2 for the mixture the applied cal egulation (EC) nex I is outside is mixture account	2000 2000 2000 2000 2000 2000 2000 200	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight hod according to the CLP), Paragraph 3.1.3.6, hat imply a classification /
No 1 LD5 Spe Metl Sou LD5 Spe Sou No 1	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2	respective ca rabbit U.S. EPA FIF CSR rabbit ECHA calculation f European Repart 3 of Anniabelling of threspective ca	CAS no. 10043-35-3 RA Guidelines 12045-78-2 for the mixture the applied cal egulation (EC) nex I is outside is mixture account	2000 2000 2000 2000 2000 2000 2000 200	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight hod according to the CLP), Paragraph 3.1.3.6, hat imply a classification / e 3.1.1 defining the :: > 20.000 ppmV (gases), >
No 1 LD5 Spe Metl Sou 2 LD5 Spe Sou	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2 mments	respective ca rabbit U.S. EPA FIF CSR rabbit ECHA calculation f European Repart 3 of Anniabelling of threspective ca	CAS no. 10043-35-3 TRA Guidelines 12045-78-2 Tor the mixture the applied cal egulation (EC) nex I is outside nis mixture acco ategories (ATE for the second the second second second second second the second se	2000 2000 2000 2000 2000 2000 2000 200	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight hod according to the CLP), Paragraph 3.1.3.6, hat imply a classification / e 3.1.1 defining the :: > 20.000 ppmV (gases), >
No 1 LD5 Spee Metil Souu 2 LD5 Spee Souu No 1 Corr Acu	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2 ments	respective ca rabbit U.S. EPA FIF CSR rabbit ECHA calculation f European Repart 3 of Anniabelling of threspective ca	CAS no. 10043-35-3 FRA Guidelines 12045-78-2 For the mixture the applied cal egulation (EC) the applied cal egulation (EC)	2000 2000 2000 2000 2000 2000 2000 200	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight hod according to the CLP), Paragraph 3.1.3.6, hat imply a classification / e 3.1.1 defining the :: > 20.000 ppmV (gases), >).
No 1 LD5 Spe Metl Sou 2 LD5 Spe Sou No 1 Com Acu No	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2 ments te inhalational toxicity Substance name	respective ca rabbit U.S. EPA FIF CSR rabbit ECHA calculation f European Repart 3 of Anniabelling of threspective ca	CAS no. 10043-35-3 FRA Guidelines 12045-78-2 For the mixture the applied cal egulation (EC) the applied cal egulation (EC)	2000 2000 2000 2000 2000 2000 2000 200	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight hod according to the CLP), Paragraph 3.1.3.6, hat imply a classification / e 3.1.1 defining the :: > 20.000 ppmV (gases), >).
No 1 LD5 Specific Second Control Second Source Second Acuines No 1 Control Second Acuines No 1 Control Second No 1	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2 iments te inhalational toxicity Substance name boric acid	respective call rabbit U.S. EPA FIF CSR rabbit ECHA calculation f European Repart 3 of Anniabelling of threspective call 20 mg/l (vapore)	CAS no. 10043-35-3 FRA Guidelines 12045-78-2 For the mixture the applied cal egulation (EC) the applied cal egulation (EC)	2000 2000 2000 2000 2000 2000 2000 200	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight hod according to the CLP), Paragraph 3.1.3.6, hat imply a classification / e 3.1.1 defining the :: > 20.000 ppmV (gases), >). EC no. 233-139-2
No 1 LD5 Spe Sou 2 LD5 Spe Sou No 1 Corr Acu No 1 LC5	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2 iments te inhalational toxicity Substance name boric acid 0	respective ca rabbit U.S. EPA FIF CSR rabbit ECHA calculation f European Repart 3 of Anniabelling of threspective ca	CAS no. 10043-35-3 FRA Guidelines 12045-78-2 For the mixture the applied cal egulation (EC) the applied cal egulation (EC)	2000 2000 2000 2000 2000 2000 2000 200	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight hod according to the CLP), Paragraph 3.1.3.6, hat imply a classification / e 3.1.1 defining the :: > 20.000 ppmV (gases), >). EC no. 233-139-2 mg/l
No 1 LD5 Specific Specific Solution 2 LD5 Specific Specific Solution Acture No 1 Correlation Acture No 1 LC5 Dura	Substance name boric acid 0 cies nod rce dipotassium tetraborate tetrahydrate 0 cies rce te inhalational toxicity (result of the ATE Product Name Rolot S2 iments te inhalational toxicity Substance name boric acid	respective call rabbit U.S. EPA FIF CSR rabbit ECHA calculation f European Repart 3 of Anniabelling of threspective call 20 mg/l (vapore)	CAS no. 10043-35-3 FRA Guidelines 12045-78-2 For the mixture the applied cal egulation (EC) the applied cal egulation (EC)	2000 2000 2000 2000 2000 2000 2000 200	EC no. 233-139-2 mg/kg bodyweight 215-575-5 mg/kg bodyweight hod according to the CLP), Paragraph 3.1.3.6, hat imply a classification / e 3.1.1 defining the :: > 20.000 ppmV (gases), >). EC no. 233-139-2

rat



Product no.: 40212, 40213, 100000134

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Region: GB

Method	OECD 403			
Source 2 dipotassium tetraborate tetrahydrate	CSR	12045-78-2	_	215-575-5
2 dipotassium tetraborate tetrahydrate	>	12045-76-2	2.04	mg/l
Duration of exposure	-		2.04 4	h
State of aggregation	Dust/mist		т	
Species	rat			
Method	OECD 403			
Source	ECHA			
Evaluation/classification		ailable data, the	classificat	tion criteria are not met
		chievable conce		
B potassium fluoride	1 (7789-23-3		232-151-5
_C50			1	mg/l
Duration of exposure			4	h
State of aggregation	Dust/mist			
Species	rat			
Method	OECD 403			
Source	ECHA			
Skin corrosion/irritation		040		F0 ==
No Substance name		CAS no.		EC no.
l boric acid	robbit	10043-35-3		233-139-2
Species	rabbit			
Method		RA Guidelines		
	CSR			
Evaluation	non-irritant	12045-78-2		215-575-5
2 dipotassium tetraborate tetrahydrate		12045-78-2	4	
Duration of exposure	rabbit		4	h
Species Source	rabbit ECHA			
Evaluation	non-corrosiv	•		
		6		
Serious eye damage/irritation				
Serious eye damage/irritation No Substance name		CAS no.		EC no.
Serious eye damage/irritation No Substance name I boric acid		CAS no. 10043-35-3		EC no. 233-139-2
Serious eye damage/irritation No Substance name I boric acid Species	rabbit			
Serious eye damage/irritation No Substance name boric acid Species with reference to	rabbit boron oxide			
Serious eye damage/irritation No Substance name I boric acid Species with reference to Wethod Wethod	rabbit boron oxide EPA			
Serious eye damage/irritation No Substance name Joric acid Species with reference to Method Source	rabbit boron oxide EPA CSR			
Serious eye damage/irritation No Substance name Joric acid Species with reference to Method Source Evaluation	rabbit boron oxide EPA	10043-35-3		233-139-2
Serious eye damage/irritation No Substance name I boric acid Species Species with reference to Method Source Source Evaluation Z	rabbit boron oxide EPA CSR			233-139-2 215-575-5
Serious eye damage/irritation No Substance name I boric acid Species series with reference to with reference to Method source Evaluation z Impotassium tetraborate tetrahydrate Duration of exposure	rabbit boron oxide EPA CSR non-irritant	10043-35-3	24	233-139-2
Serious eye damage/irritation No Substance name I boric acid Species Species with reference to Method Source Source Evaluation Image: Construction of exposure Ouration of exposure Species	rabbit boron oxide EPA CSR non-irritant	10043-35-3	24	233-139-2 215-575-5
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation Z dipotassium tetraborate tetrahydrate Duration of exposure Species Method	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405	10043-35-3	24	233-139-2 215-575-5
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation 2 dipotassium tetraborate tetrahydrate Duration of exposure Species Method Source Species Method Species Species Method Species Method Species Method Species Method Source	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA	10043-35-3	24	233-139-2 215-575-5
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation Z dipotassium tetraborate tetrahydrate Duration of exposure Species Method	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405	10043-35-3	24	233-139-2 215-575-5
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation 2 dipotassium tetraborate tetrahydrate Duration of exposure Species Method Source Evaluation 2 Variation of exposure Species Method Source Evaluation	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA	10043-35-3	24	233-139-2 215-575-5
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation 2 dipotassium tetraborate tetrahydrate Duration of exposure Species Method Source Evaluation Respiratory or skin sensitisation	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA	10043-35-3 12045-78-2	24	233-139-2 215-575-5 h
Serious eye damage/irritation No Substance name Image: boric acid Species with reference to Method Source Evaluation Image: Display and the second	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA	10043-35-3 12045-78-2 CAS no.	24	233-139-2 215-575-5 h EC no.
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation 2 dipotassium tetraborate tetrahydrate Duration of exposure Species Method Source Evaluation Respiratory or skin sensitisation No Substance name I boric acid	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA non-irritant	10043-35-3 12045-78-2	24	233-139-2 215-575-5 h
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation 2 dipotassium tetraborate tetrahydrate Duration of exposure Species Method Source Evaluation Respiratory or skin sensitisation No Substance name I boric acid Route of exposure	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA non-irritant	10043-35-3 12045-78-2 CAS no.	24	233-139-2 215-575-5 h EC no.
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation 2 dipotassium tetraborate tetrahydrate Duration of exposure Species Method Source Evaluation Respiratory or skin sensitisation No Substance name I boric acid Route of exposure Species	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA non-irritant	10043-35-3 12045-78-2 CAS no.	24	233-139-2 215-575-5 h EC no.
Serious eye damage/irritation No Substance name I boric acid Species Species with reference to Method Source Source Evaluation Image: Composition of exposure Species Method Ouration of exposure Species Species Method Source Species Evaluation Source Evaluation Species Method Source Evaluation Species Respiratory or skin sensitisation No Substance name Species I boric acid Route of exposure Species Species Method	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA non-irritant Skin guinea pig OECD 406	10043-35-3 12045-78-2 CAS no.	24	233-139-2 215-575-5 h EC no.
Serious eye damage/irritation No Substance name I boric acid Species Species with reference to Method Source Source Evaluation Image: Species Q dipotassium tetraborate tetrahydrate Duration of exposure Species Species Method Source Species Valuation Source Evaluation Source Evaluation Source Source Source Evaluation Source Evaluation Source Evaluation Substance name I boric acid Route of exposure Species Species Method Source Species	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA non-irritant Skin guinea pig OECD 406 CSR	10043-35-3 12045-78-2 CAS no. 10043-35-3	24	233-139-2 215-575-5 h EC no.
Serious eye damage/irritation No Substance name Image: boric acid Source Species With reference to Method Source Evaluation Image: Composition of exposure Species Image: Composition of exposure Respiratory or skin sensitisation Image: Composition of exposure No Substance name Image: Composition of exposure Species Image: Composition of exposure Image: Composition of exposure Species Image: Composition of exposure Image: Composition of exposure Species Image: Composition of exposure Image: Composition of exposure Species Image: Composition of exposure Image: Composition of exposure Species Image: Composition of exposure Image: Composition of exposition of	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA non-irritant Skin guinea pig OECD 406	10043-35-3 12045-78-2 CAS no. 10043-35-3	24	233-139-2 215-575-5 h EC no. 233-139-2
Serious eye damage/irritation No Substance name Image: boric acid Substance name Species With reference to Method Source Evaluation Image: Composition of exposure Species Image: Composition of exposure Respiratory or skin sensitisation Image: Composition of exposure Respiratory or skin sensitisation Image: Composition of exposure Substance name Image: Composition of exposure Species Image: Composition of exposition of	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA non-irritant Skin guinea pig OECD 406 CSR non-sensitizi	10043-35-3 12045-78-2 CAS no. 10043-35-3	24	233-139-2 215-575-5 h EC no.
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation 2 dipotassium tetraborate tetrahydrate Duration of exposure Species Method Source Evaluation Species Method Source Evaluation Respiratory or skin sensitisation No Substance name boric acid Route of exposure Species Method Source Evaluation Route of exposure Species Method Source Substance name boric acid Route of exposure Evaluation 2 dipotassium tetraborate tetrahydrate Route of exposure	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA non-irritant Skin guinea pig OECD 406 CSR non-sensitizi	10043-35-3 12045-78-2 CAS no. 10043-35-3	24	233-139-2 215-575-5 h EC no. 233-139-2
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation 2 dipotassium tetraborate tetrahydrate Duration of exposure Species Method Source Evaluation Respiratory or skin sensitisation No Substance name boric acid Route of exposure Species Method Source Evaluation Route of exposure Species Method Source Substance name boric acid Route of exposure Species Method Source Evaluation Quipotassium tetraborate tetrahydrate Route of exposure Evaluation Quipotassium tetraborate tetrahydrate Route of exposure Species	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA non-irritant Skin guinea pig OECD 406 CSR non-sensitizi Skin guinea pig	10043-35-3 12045-78-2 CAS no. 10043-35-3	24	233-139-2 215-575-5 h EC no. 233-139-2
Serious eye damage/irritation No Substance name boric acid Species with reference to Method Source Evaluation 2 dipotassium tetraborate tetrahydrate Duration of exposure Species Method Source Evaluation Species Method Source Evaluation Respiratory or skin sensitisation No Substance name boric acid Route of exposure Species Method Source Evaluation Route of exposure Species Method Source Substance name boric acid Route of exposure Evaluation 2 dipotassium tetraborate tetrahydrate Route of exposure	rabbit boron oxide EPA CSR non-irritant rabbit OECD 405 ECHA non-irritant Skin guinea pig OECD 406 CSR non-sensitizi	10043-35-3 12045-78-2 CAS no. 10043-35-3	24	233-139-2 215-575-5 h EC no. 233-139-2



Product no.: 40212, 40213, 100000134

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3 potassium fluoride	7789-23-3	232-151-5
Route of exposure	Skin	
Species	guinea pig	
Method	EPA OPP 81-6	
Source	ECHA	
Evaluation	non-sensitizing	
Gorm coll mutagonicity		
Germ cell mutagenicity No Substance name	CAS no.	EC no.
1 boric acid	10043-35-3	233-139-2
Source	CSR	200-100-2
Evaluation/classification	Based on available data, the cla	ssification criteria are not met
2 dipotassium tetraborate tetrahydrate	12045-78-2	215-575-5
Source	ECHA	210-010-0
Evaluation/classification	Based on available data, the cla	ssification criteria are not met
3 potassium fluoride	7789-23-3	232-151-5
Route of exposure	oral	
Duration of exposure	6	week/s
Species	mouse	
Method	EPA OPPTS 870.5385	
Source	ECHA	
Evaluation/classification	Based on available data, the cla	ssification criteria are not met.
	· · · · · · · · · · · · · · · · · · ·	
Reproduction toxicity		F O
No Substance name	CAS no.	EC no.
1 boric acid	10043-35-3	233-139-2
Source	CSR Record on evolution data, the electronic	noification oritoria are met
Evaluation/classification	Based on available data, the cla	
2 dipotassium tetraborate tetrahydrate	<u>12045-78-2</u>	215-575-5
Route of exposure	oral	
Species Source	rat ECHA	
		ssification criteria are not met
Evaluation/classification	Based on available data, the cla	ssification criteria are not met.
Evaluation/classification Carcinogenicity	Based on available data, the cla	
Evaluation/classification Carcinogenicity No Substance name	Based on available data, the cla CAS no.	EC no.
Evaluation/classification Carcinogenicity No Substance name 1 boric acid	Based on available data, the cla CAS no. 10043-35-3	
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source	Based on available data, the cla CAS no. 10043-35-3 CSR	EC no. 233-139-2
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla	EC no. 233-139-2 ssification criteria are not met.
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2	EC no. 233-139-2
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral	EC no. 233-139-2 ssification criteria are not met. 215-575-5
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral 50	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral 50 10	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral formulable data	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral 50 10 mouse OECD 451	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral 0ECD 451 ECHA	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification	Based on available data, the cla CAS no. CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral OECD 451 ECHA Based on available data, the cla	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met.
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral oral CSR CSR Based on available data, the cla CCD CCD CCD CCD CCD CCD CCD CCD CCD CC	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Source	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral OECD 451 ECHA Based on available data, the cla 7789-23-3 oral	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met.
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral OECD 451 ECHA Based on available data, the cla 7789-23-3 oral rat	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met.
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Evaluation/classification Species Method Method	Based on available data, the cla CAS no. CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral OECD 451 ECHA Based on available data, the cla 7789-23-3 oral rat EPA OPP 83-5	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met.
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Species Method Source Source Species Species Method Source Species Species Method Source	Based on available data, the cla CAS no. CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral OECD 451 ECHA Based on available data, the cla 7789-23-3 oral rat EPA OPP 83-5 ECHA	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met. 232-151-5
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Evaluation/classification Species Method Method	Based on available data, the cla CAS no. CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral OECD 451 ECHA Based on available data, the cla 7789-23-3 oral rat EPA OPP 83-5	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met. 232-151-5
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Species Method Source Source Species Species Method Source Species Species Method Source	Based on available data, the cla CAS no. CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral OECD 451 ECHA Based on available data, the cla 7789-23-3 oral rat EPA OPP 83-5 ECHA	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met. 232-151-5
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Evaluation/classification Source Species Method Source Evaluation/classification	Based on available data, the cla CAS no. CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral OECD 451 ECHA Based on available data, the cla 7789-23-3 oral rat EPA OPP 83-5 ECHA	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met. 232-151-5
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Evaluation/classification Source Evaluation/classification Source Species Method Source Evaluation/classification Storce Evaluation/classification Source Evaluation/classification Source Evaluation/classification Source Evaluation/classification Stort - single exposure Source No Substance name	CAS no. CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral 50 mouse 50 OECD 451 ECHA Based on available data, the cla 7789-23-3 oral rat EPA OPP 83-5 ECHA Based on available data, the cla 50	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met. 232-151-5
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Evaluation/classification Source Evaluation/classification Source Evaluation/classification Stot Stot Source Evaluation/classification Stot Substance name 1 potassium fluoride	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral oral GECD 451 ECHA Based on available data, the cla 7789-23-3 oral rat EPA OPP 83-5 ECHA Based on available data, the cla CAS no.	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met. 232-151-5 Ssification criteria are not met. EC no.
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Evaluation of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Evaluation/classification Storre Species Method Source Evaluation/classification Storre Substance name No Substance name 1 potassium fluoride Route of exposure Substance name 1 potassium fluoride	Based on available data, the cla CAS no. 10043-35-3 CSR Based on available data, the cla 12045-78-2 oral oral 50 mouse OECD 451 ECHA Based on available data, the cla 7789-23-3 oral rat EPA OPP 83-5 ECHA Based on available data, the cla CAS no. 7789-23-3	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met. 232-151-5 Ssification criteria are not met. EC no.
Evaluation/classification Carcinogenicity No Substance name 1 boric acid Source Evaluation/classification 2 dipotassium tetraborate tetrahydrate Route of exposure Duration of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Evaluation/classification 3 potassium fluoride Route of exposure Species Method Source Evaluation/classification Source Evaluation/classification Source Evaluation/classification Stot Stot Source Evaluation/classification Stot Substance name 1 potassium fluoride	CAS no. CAS no. 10043-35-3 CAS no. CAS no. 12045-78-2 oral 50 mouse OECD 451 ECHA Based on available data, the cla T789-23-3 oral rat EPA OPP 83-5 ECHA Based on available data, the cla CAS no. T789-23-3 oral oral	EC no. 233-139-2 ssification criteria are not met. 215-575-5 00 ppm 3 week/s ssification criteria are not met. 232-151-5 Ssification criteria are not met. EC no.



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STC	T - repeated exposure			
No	Substance name		CAS no.	EC no.
1	dipotassium tetraborate tetrahydrate		12045-78-2	215-575-5
Rou	te of exposure	oral		
Dura	ation of exposure		2	year(s)
Spe	cies	rat		
Sou	rce	ECHA		
Evaluation/classification		Based on av	ailable data, the class	ification criteria are not met.

No data available

11.2 Information on other hazards

Endocrine disrupting properties No data available.

Other information

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Toxi	city to fish (acute)			
	Substance name	CAS no.		EC no.
1	boric acid	10043-35-3		233-139-2
LC50)		79.7	mg/l
Dura	tion of exposure		96	h
Spec	cies	Pimephales promelas		
Sour		CSR		
	dipotassium tetraborate tetrahydrate	12045-78-2		215-575-5
LC50			74	mg/l
	tion of exposure		96	h
Spec		Limanda limanda		
Meth		OECD		
Sour	ce	ECHA		
Toxi	city to fish (chronic)			
	ata available			
	city to Daphnia (acute)			
	Substance name	CAS no.		EC no.
	boric acid	10043-35-3		233-139-2
EC50			13	mg/l
	tion of exposure		48	h
Spec		Daphnia magna		
Sour		CSR		
	dipotassium tetraborate tetrahydrate	12045-78-2		215-575-5
EC50			133	mg/l
	tion of exposure		48	h
Spec		Daphnia magna		
Meth		ASTM Standard E 729-80		
Sour	ce	ECHA		
Toxi	city to Daphnia (chronic)			
	ata available			
Toxicity to algae (acute)				
	city to algae (acute)			
	city to algae (acute) Substance name	CAS no.		EC no.
No		CAS no. 10043-35-3		EC no. 233-139-2



Product no.: 40212, 40213, 100000134

Current version : 3.0.0, issued: 28.04.2021

Replaced version: 2.0.0, issued: 07.11.2019

Region: GB

Duration of exposure		72	h	
Species	Pseudokirchneriella sub	bcapitata		
Source	CSR			
	·			
Toxicity to algae (chronic)				
No data available				
Bacteria toxicity				
No data available				

12.2 Persistence and degradability No data available.

12.3 Bioaccumulative potential No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment		
	PBT assessment	No data available.
	vPvB assessment	No data available.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Other information

Other information Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility. Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.



Trade name: Rolot S2 Product no.: 40212, 40213, 1000000134 Current version : 3.0.0, issued: 28.04.2021

Replaced version: 2.0.0, issued: 07.11.2019

14.6 Special precautions for user

- No data available.
- 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 regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REA	CH candidate list of substances of very high	concern (SVHC) for authoris	ation	
The product contains following substance(s) meeting the criteria in Article 57 in association with Article 59 of the				
REACH regulation ((EC) 1907/2006) that are placed on the list of candidates considered for inclusion in annex XIV				
	stances subject to Authorisation).			
No	Substance name	CAS no.	EC no.	
1	boric acid	10043-35-3	233-139-2	
Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES				
	product contains following substance(s) that are ex XVII.	considered being subject to R	EACH regulation (EC) 190	7/2006
No	Substance name	CAS no	EC no No	

NO	Substance name	CAS no.	EC no.	NO
1	boric acid	10043-35-3	233-139-2	30

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances This product is not subject to Part 1 or 2 of Annex I.

Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H228	Flammable solid.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H360FD	May damage fertility. May damage the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging
	the unborn child.
H412	Harmful to aquatic life with long lasting effects.

Creation of the safety data sheet



Trade name: Rolot S2

Product no.: 40212, 40213, 100000134

Current version : 3.0.0, issued: 28.04.2021

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Region: GB

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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