



Safety Data Sheet according to (EC) No 1907/2006 as amended

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BONDERITE S-FN R-BLOC AERO PREVENTATIVE COATING
known as TURCO RUSTBLOC KN28RWE=

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

1.1. Product identifier

BONDERITE S-FN R-BLOC AERO PREVENTATIVE COATING known as TURCO RUSTBLOC KN28RWE=

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

Intended use:

Corrosion Protection Agents for Metals

1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA
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40589 Düsseldorf

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For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or www.henkel-adhesives.com.

SDSinfo.Adhesive@henkel.com

1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Serious eye irritation

Category 2

H319 Causes serious eye irritation.

Toxic to reproduction

Category 2

H361 Suspected of damaging fertility or the unborn child.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains

Boric acid, monoethanolamine salt (1:1)

Signal word:

Warning

Hazard statement: H319 Causes serious eye irritation.
 H361 Suspected of damaging fertility or the unborn child.

Precautionary statement: P280 Wear eye protection/face protection.
Prevention

2.3. Other hazards

None if used properly.

Following substances are present in a concentration \geq the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration \geq the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Tetrapotassium pyrophosphate 7320-34-5 230-785-7 01-2119489369-18	10- 20 %	Eye Irrit. 2, H319 Acute Tox. 4, Oral, H302		
Boric acid, monoethanolamine salt (1:1) 68586-07-2 271-606-2	5- < 10 %	Repr. 2, H361	dermal:ATE = 2.500 mg/kg oral:ATE = 2.500 mg/kg	
Tripotassium orthophosphate 7778-53-2 231-907-1 01-2119971078-30	1- < 3 %	Eye Dam. 1, H318 STOT SE 3, H335		

For full text of the H - statements and other abbreviations see section 16 "Other information".

Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to Detergent Regulation 648/2004/EC

15 - 30 % phosphates

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
 Move to fresh air, consult doctor if complaint persists.

Skin contact:
 Immediately wash skin thoroughly with soap and water.

Eye contact:
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of adverse health effects seek medical advice.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

EYE: Irritation, conjunctivitis.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in fires.

5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

Additional information:

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust).

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.

Ensure that workrooms are adequately ventilated.

See advice in section 8

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container.

Store in a cool, frost-free place.

7.3. Specific end use(s)

Corrosion Protection Agents for Metals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
 Germany

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
2,2',2''-Nitrilotriethanol 102-71-6			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
2,2',2''-Nitrilotriethanol 102-71-6		1	Exposure limit(s):	1 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Tetrapotassium pyrophosphate 7320-34-5	Predator						no potential for bioaccumulation

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Tetrapotassium pyrophosphate 7320-34-5	Workers	inhalation	Long term exposure - systemic effects		17,63 mg/m ³	no potential for bioaccumulation
Tetrapotassium pyrophosphate 7320-34-5	General population	inhalation	Long term exposure - systemic effects		4,35 mg/m ³	no potential for bioaccumulation
Tripotassium orthophosphate 7778-53-2	Workers	inhalation	Long term exposure - systemic effects		23,09 mg/m ³	
Tripotassium orthophosphate 7778-53-2	General population	inhalation	Long term exposure - systemic effects		9,9 mg/m ³	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:
 Ensure good ventilation/suction at the workplace.

Respiratory protection:
 In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).
 This recommendation should be matched to local conditions.

Hand protection:

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Polychloroprene (CR; >= 1 mm thickness) or natural rubber (NR; >=1 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Polychloroprene (CR; >= 1 mm thickness) or natural rubber (NR; >=1 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Protective goggles
 Protective eye equipment should conform to EN166.

Skin protection:

Suitable protective clothing
 Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Delivery form	liquid
Colour	colourless
Odor	pungent
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	< 0 °C (< 32 °F) Aqueous solution
Initial boiling point	> 100 °C (> 212 °F) Aqueous solution
Flammability	Not applicable Aqueous solution
Explosive limits	Not applicable, Aqueous solution
Flash point	No flash point up to 100°C. Aqueous preparation.
Auto-ignition temperature	Not applicable, Aqueous solution
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH	9,0 - 10,6 PH-value, potentiometer
(20 °C (68 °F); Conc.: 1 % product; Solvent: Demineralised water)	
Viscosity (kinematic)	1 - 2,5 mm ² /s
(20 °C (68 °F);)	
Solubility (qualitative)	fully miscible
(20 °C (68 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	Not applicable Mixture
Vapour pressure	23,4 hPa Values referring to water
(20 °C (68 °F))	
Density	1,332 - 1,352 g/cm ³ Density, oscillation
(20 °C (68 °F))	
Relative vapour density:	< 1
(20 °C)	
Particle characteristics	Not applicable Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with strong acids.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

No decomposition if used according to specifications.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

None if used for intended purpose.

In case of fire toxic gases can be released.

SECTION 11: Toxicological information

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

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	LD50	> 300 - < 2.000 mg/kg	rat	OECD Guideline 420 (Acute Oral Toxicity)
Boric acid, monoethanolamine salt (1:1) 68586-07-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Boric acid, monoethanolamine salt (1:1) 68586-07-2	Acute toxicity estimate (ATE)	2.500 mg/kg		Expert judgement
Tripotassium orthophosphate 7778-53-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Boric acid, monoethanolamine salt (1:1) 68586-07-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Boric acid, monoethanolamine salt (1:1) 68586-07-2	Acute toxicity estimate (ATE)	2.500 mg/kg		Expert judgement
Tripotassium orthophosphate 7778-53-2	LD50	> 5.000 mg/kg	rabbit	not specified

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	LC50	> 1,1 mg/l	dust	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Boric acid, monoethanolamine salt (1:1) 68586-07-2	not irritating	4 h	rabbit	Directive 84/449/EEC

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	Category II		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Boric acid, monoethanolamine salt (1:1) 68586-07-2	not irritating		rabbit	EPA OPPTS 870.2400 (Acute Eye Irritation)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	negative	bacterial reverse mutation assay (e.g Ames test)	with		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Carcinogenicity

No data available.

Reproductive toxicity:

No data available.

STOT-single exposure:

No data available.

STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	NOAEL 500 mg/kg	oral: gavage	90 d Once a day, 5 days a week	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains / surface water / ground water.

The product does not contain surface-active substances as defined in the EU Detergent Regulation (EC/648/2004).

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	LC50	> 100 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Tripotassium orthophosphate 7778-53-2	LC50	> 900 mg/l	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	EC50	> 100 mg/l	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
Tripotassium orthophosphate 7778-53-2	EC50	> 100 mg/l	48 h	Daphnia magna	not specified

Chronic toxicity (aquatic invertebrates):

No data available.

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	EC50	> 100 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Tetrapotassium pyrophosphate 7320-34-5	NOEC	> 100 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Tetrapotassium pyrophosphate 7320-34-5	EC50	> 1.000 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
Tetrapotassium pyrophosphate 7320-34-5	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.
Tripotassium orthophosphate 7778-53-2	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

If acidic or alkaline products are discharged into wastewater installations care must be taken that the discharged wastewater has a pH in the range pH 6 - 10, as pH variations could cause disorders in wastewater channels and biological sewage treatment plants. The local discharge regulations take precedence.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

EWC/EAK 070608

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

- 14.1. UN number or ID number**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.2. UN proper shipping name**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.3. Transport hazard class(es)**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.4. Packing group**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.5. Environmental hazards**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.6. Special precautions for user**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.7. Maritime transport in bulk according to IMO instruments**
not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EU)	0 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK: WGK 1: slightly hazardous to water (Ordinance on facilities for handling substances that are hazardous to water (AwSV))
Classification according to AwSV, Annex 1 (5.2)

Storage class according to TRGS 510: 10

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H302 Harmful if swallowed.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H361 Suspected of damaging fertility or the unborn child.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2:	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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