

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Nickel HR No.2 Photometer

Revision date 11-29-2021

Revision Number 2

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

1.1. Product identifier

Product Code(s)	TBSPNICKHR2
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Product Name Nickel HR No.2 Photometer

Unique Formula Identifier (UFI) DMRW-10GX-2K13-JD15

Pure substance/mixture Mixture Contains Boric Acid

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

Recommended use Reag	ent for water analysis
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Uses advised against Others

1.3. Details of the supplier of the safety data sheet

Manufacturer

Water-I.D. GmbH Daimlerstr. 20 76344 Eggenstein, Germany Tel.: +49 (0) 721 78 20 29 0, Fax: +49 (0) 721 78 20 29 11 Website: www.water-id.com EHS / Compliance: lab@water-id.com

1.4. Emergency telephone number

Emergency Telephone	Poison Control Centre Munich Tel.: +49 (0) 89 19 24 0
	Germany
	24 hours service
	Languages: German, English

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Inhalation (Dusts/Mists)	Category 2 - (H330)
Reproductive toxicity	Category 1B - (H360FD)

2.2. Label elements

Contains Boric Acid



Danger

Hazard statements

H330 - Fatal if inhaled H360FD - May damage fertility. May damage the unborn child

Precautionary Statements - EU (§28, 1272/2008)

P201 - Obtain special instructions before use
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P310 - Immediately call a POISON CENTER or doctor
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Additional information

This product requires tactile warnings if supplied to the general public. This product requires child resistant fastenings if supplied to the general public.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Boric Acid 10043-35-3	70-90	No data available	233-139-2	Repr. 1B (H360FD)	Repr. 1B :: C>=5.5%		

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Boric Acid 10043-35-3	2660	2000	0.16	·	

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

	Chemical name	CAS No	SVHC candidates
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Boric Acid

10043-35-3

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SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a doctor or poison control centre immediately.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information.
4.2. Most important symptoms and e	effects, both acute and delayed
Symptoms	Coughing and/ or wheezing. Difficulty in breathing.
4.3. Indication of any immediate med	dical attention and special treatment needed
Note to doctors	Treat symptomatically.

SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Large Fire CAUTION: Use of water spray when fighting fire may be inefficient. Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams. 5.2. Special hazards arising from the substance or mixture Specific hazards arising from the No information available. chemical 5.3. Advice for firefighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout Special protective equipment for fire-fighters gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid generation of dust. Do not breathe dust. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.
6.2. Environmental precautions	
Environmental precautions	Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.
6.3. Methods and material for contai	inment and cleaning up
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
6.4. Reference to other sections	
Reference to other sections	See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not breathe dust. Avoid generation of dust. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Remove contaminated clothing and shoes.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Do not breathe dust. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.
7.2. Conditions for safe storage, inc	luding any incompatibilities
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bul	garia	Croatia
Boric Acid	-	-	TWA: 2 mg/m ³	TWA: 5	5.0 mg/m ³	-
10043-35-3			STEL: 6 mg/m ³			
Chemical name	France	Germany	Germany MAK	Gr	eece	Hungary
Boric Acid	-	TWA: 0.5 mg/m ³	TWA: 10 mg/m ³		-	-
10043-35-3		-	Peak: 10 mg/m ³			
Chemical name	Ireland	Italy	Italy REL	Latvia		Lithuania
Boric Acid	TWA: 2 mg/m ³	-	TWA: 2 mg/m ³	TWA: 1	10 mg/m ³	TWA: 10 mg/m ³
10043-35-3	STEL: 6 mg/m ³		STEL: 6 mg/m ³		_	-
Chemical name	Portugal	Romania	Slovakia	Slo	venia	Spain
Boric Acid	TWA: 2 mg/m ³	-	-).5 mg/m ³	TWA: 2 mg/m ³
10043-35-3	STEL: 6 mg/m ³			STEL: S	TEL mg/m ³	STEL: 6 mg/m ³
Chemical name	Sweden		Switzerland		Unite	ed Kingdom
Boric Acid -		-	TWA: 1.8 mg/m ³			-
10043-35-3		STEL: 1.8		n ³		

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Derived No Effect Level (DNEL) Predicted No Effect Concentration (PNEC)	No information available. No information available.
8.2. Exposure controls	
Personal protective equipment	
Eye/face protection	No special protective equipment required.
Hand protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Do not breathe dust. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.
Environmental exposure controls	No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties		
Physical state	Solid	
Appearance	tablet	
Colour	beige	
Odour	Odourless.	
Odour threshold	No information available	

TBSPNICKHR2 - Nickel HR No.2 Photometer

Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
рН	6.8	None known
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regards to physical hazard classes Not applicable

9.2.2. Other safety characteristics No information available

SECTION 10: Stability and reactivity

10.1. Reactivity		
Reactivity	No information available.	
10.2. Chemical stability		
Stability	Stable under normal conditions.	
Explosion data Sensitivity to mechanical impact Sensitivity to static discharge	t None. None.	
10.3. Possibility of hazardous reactions		
Possibility of hazardous reactions	None under normal processing.	
10.4. Conditions to avoid		
Conditions to avoid	Excessive heat.	
10.5. Incompatible materials		
Incompatible materials	None known based on information supplied.	
10.6. Hazardous decomposition pro	ducts	

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Fatal if inhaled. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.
Symptoms related to the physical, chemical and toxicological characteristics	
Symptoms	Coughing and/ or wheezing. Difficulty in breathing.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS documentATEmix (oral)3,114.70 mg/kgATEmix (dermal)2,034.20 mg/kgATEmix (inhalation-dust/mist)0.163 mg/l

Unknown acute toxicity

17.3 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

	Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Γ	Boric Acid	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 0.16 mg/L (Rat)4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

.		considered as relevant which are listed as reproductive toxins.	
Chemical name		European Union	
Boric Acid	t	Repr. 1B	
STOT - single exposure	No information available.		
STOT - repeated exposure	No information available.		
Aspiration hazard No information available.			
11.2. Information on other hazards			
11.2.1. Endocrine disrupting properties			
Endocrine disrupting properties No information available.			
11.2.2. Other information			
Other adverse effects No information available.			

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
Boric Acid	-	-	-	EC50: 115 - 153mg/L
				(48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

There is no data for this product.

Component Information

Chemical name	Partition coefficient
Boric Acid	-0.757

12.4. Mobility in soil

Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Boric Acid	The substance is not PBT / vPvB PBT assessment does
	not apply

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information

IATA 14.1 UN number or ID number 14.2 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazards 14.6 Special precautions for user Special Provisions	Not regulated Not regulated Not regulated Not applicable None
IMDG	
14.1 UN number or ID number 14.2	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant14.6 Special precautions for user	Not applicable
Special Provisions	None No information available
14.7 Maritime transport in bulk	No information available
according to IMO instruments	
RID	
14.1 UN number or ID number	Not regulated
14.2	
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group 14.5 Environmental hazards	Not regulated Not applicable
14.6 Special precautions for user	
Special Provisions	None
ADR	
14.1 UN number or ID number	Not regulated
14.2	5
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group 14.5 Environmental hazards	Not regulated Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

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

Netherlands

Chemical name	Netherlands - List of	Netherlands - List of	Netherlands - List of
	Carcinogens	Carcinogens	Reproductive Toxins
Boric Acid	-	-	Fertility Category 1B Development Category 1B

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Boric Acid - 10043-35-3	30.	

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU) H2 - ACUTE TOXIC

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Biocidal Product Regulation ((EU) 528/2012)

Chemical name	EU - Biocidal Product Regulation ((EU) 528/2012)	
Boric Acid - 10043-35-3	Product-type 8: Wood preservatives	

International Inventories	
TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

- **KECL** Korean Existing and Evaluated Chemical Substances **PICCS** Philippines Inventory of Chemicals and Chemical Substances
- AICS Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report

No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H360FD - May damage fertility. May damage the unborn child

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure		
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used	
Acute oral toxicity	Calculation method	
Acute dermal toxicity	Calculation method	
Acute inhalation toxicity - gas	Calculation method	
Acute inhalation toxicity - Vapour	Calculation method	
Acute inhalation toxicity - dust/mist	Calculation method	
Skin corrosion/irritation	Calculation method	
Serious eye damage/eye irritation	Calculation method	
Respiratory sensitisation	Calculation method	
Skin sensitisation	Calculation method	
Mutagenicity	Calculation method	
Carcinogenicity	Calculation method	
STOT - single exposure	Calculation method	
STOT - repeated exposure	Calculation method	
Acute aquatic toxicity	Calculation method	
Chronic aquatic toxicity	Calculation method	
Aspiration hazard	Calculation method	
Ozone	Calculation method	

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme Organisation for Economic Co-operation and Development Screening Information Data Set World Health Organization

Revision date 11-29-2021

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet