

1. Identification of the substance/preparation and of the Company/undertaking

Product Identifier

Product Type Boronitride products
Product name **KB1630 - Article**
Product code KA1040-1

Type This article doesn't contain hazardous substances or mixtures intended to be released under normal or reasonably foreseeable conditions of use, not applicable, article

Other means of identification

Synonyms No information available

Recommended use of the chemical and restrictions on use

Recommended Use Mining Tools, Construction Tools, Round Tools, Metalworking Tools, Metallurgical Products, Inserts, For use in industrial installations only, Service life, hardmetal articles, Industrial use, Professional use

Uses advised against Do no re-sharpen tools without using appropriate safety and extraction systems to avoid dust exposure. Return tools to Kennametal for reconditioning services. Consumer use.

Details of the Supplier of the Safety Data Sheet

Emergency Telephone Number

Emergency Telephone Number CHEMTREC: +1-703-527-3887 (INTERNATIONAL)
1-800-424-9300 (NORTH AMERICA)

NRC (National Response Center) USA, Poison Centres +1 800 222 1222
Canada, IWK Regional Poison Center +1 902 470 8161 or 1 800 565 8161

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2. Hazards Identification

Classification

As a sintered tool, exposure to high volumes of powder/dust is not anticipated under normal conditions and use. If tool chips, breaks, fragments or is reground, exposure to powder/dust may result in potential health effects.

Label Elements

Emergency Overview

Precautionary Statements - Prevention

Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor/physician **Skin** If skin irritation or rash occurs: Get medical advice/attention.

Inhalation If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Appearance grey solid

Physical State @20°C solid

Odor none

Hazards not otherwise classified (HNOC)

WARNING

Fragmentation hazard. Cutting tools and holders may fragment in use. Always wear safety equipment and keep machine guards in places. Do not re-sharpen tools without using appropriate safety and extraction systems to avoid dust exposure. Return tools to Kennametal for reconditioning services. Use personal protective equipment as required

Other Hazards

No known effects under normal use conditions.

3. Composition/Information on Ingredients

Chemical name	Formula	CAS-No	weight-%	GHS Classification
Boron nitride	BN	10043-11-5	> 50	Not classified
Cobalt Nitride	CoN	12139-70-7	5 - 10	Not classified
Nickel	Ni	7440-02-0	3 - 5	STOT RE 1 (H372) Resp. tract, inhalation Carc. 2 (H351) Inhalation Skin Sens. 1 (H317) S,7 Aquatic Chronic 3 (H412)

* The exact percentage (concentration) of composition has been withheld as a trade secret.

NOTE

This article is based on a hard metal body and a brazed cubic boron nitride (cBN) layer on top as the cutting material. The SDS information provides information for the wearing cBN material only. The hard metal body is based on about 90 % Tungsten Carbide (WC) and 10% Cobalt (Co).

Full text of H-Statements referred to under sections 2 and 3

H317 - May cause an allergic skin reaction
H351 - Suspected of causing cancer if inhaled
H372 - Causes damage to kidneys through prolonged or repeated exposure if inhaled
H412 - Harmful to aquatic life with long lasting effects

4. First aid measures

FIRST AID MEASURES

General advice

If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Eye Contact

Keep eye wide open while rinsing. If symptoms persist, call a physician. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin contact

Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash off immediately with soap and plenty of water.

Inhalation

Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. Oxygen or artificial respiration if needed. Keep victim warm and quiet. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get medical attention.

Ingestion

Drink plenty of water. If symptoms persist, call a physician. Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless directed to do so by a physician.

Self-protection of the first aider Self-protection of the first aider. Wear suitable gloves.

Most important symptoms and effects, both acute and delayed

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

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical

Protective equipment and precautions for firefighters Use personal protective equipment as required

Component Information

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required.

Environmental precautions Avoid release to the environment.

Methods and material for containment and cleaning up Prevent further leakage or spillage if safe to do so. Collect in closed and suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Minimize dust generation and accumulation. Use personal protective equipment as required. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place.

Incompatible products (STRONG) OXIDIZER. 20 - Acids/bases.

Specific use(s) For use in industrial installations only.

8. Exposure Controls/Personal Protection

Control parameters

Chemical name	USA - ACGIH TLV	USA - OSHA PEL	USA - NIOSH IDLH	Argentina	Brazil
Nickel	1.5 mg/m ³ TWA (inhalable fraction)	1 mg/m ³ TWA	10 mg/m ³ IDLH	TWA: 1.5 mg/m ³	-
Chemical name	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec	Canada - Manitoba
Nickel	1.5 mg/m ³ TWA	0.05 mg/m ³ TWA	1 mg/m ³ TWA (inhalable)	1 mg/m ³ TWAEV	1.5 mg/m ³ TWA (inhalable fraction)

Chemical name	Chile	Colombia - OEL	Mexico OEL (TWA)	Nicaragua	Peru
Nickel	TWA: 0.8 mg/m ³	1.5 mg/m ³ TWA (inhalable fraction)	1 mg/m ³ TWA LMPE-PPT	1.5 mg/m ³ TWA (inhalable fraction)	1.5 mg/m ³ TWA
Chemical name	Uruguay	Venezuela	---	---	---
Nickel	1.5 mg/m ³ TWA (inhalable fraction)	TWA: 1.5 mg/m ³	-	-	-

NIOSH IDLH: Immediately Dangerous to Life or Health

Chemical name	Derived No Effect Level (DNEL)	Predicted No Effect Concentration (PNEC)
Cobalt Nitride	0.1242 mg/m ³ local inhalation	-
Nickel	0.05 mg/m ³ local inhalation; 0.05 mg/m ³ systemic inhalation	0.0035-0.0218 mg/l freshwater; 0.0023 mg/l marine water

Appropriate engineering controls

Engineering controls Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles).

Skin Protection Wear impervious gloves and/or clothing if needed to prevent contact with the material.

Hand Protection Protective gloves.

Respiratory protection If exposure limits are likely to be exceeded or if irritation or other symptoms are experienced, NIOSH/MSHA or EN 136 approved respiratory protection should be worn.

Hygiene Measures Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and at the end of workday. Avoid contact with skin, eyes and clothing.

Biological standards

Chemical name	USA ACGIH -BEI	Argentina - Occupational Exposure Limits - Biological Exposure Indices (BEIs)	Chile - Occupational Exposure Limits - Biological Exposure Indices (BEIs)
Nickel	-	<5 µg/g Creatinine urine Ni	-

9.1 Information on basic physical and chemical properties

Physical State @20°C	solid	Appearance	grey, solid
Odor	none	Odor Threshold	none °C / °F
Boiling temperature / boiling range	no data available °C / °F	flash point	not applicable
Vapor Pressure	not applicable	Vapor Density	not applicable
Water solubility	practically insoluble	Autoignition temperature	no data available
Decomposition Temperature	unknown	Dynamic viscosity	not applicable
Explosive properties	not applicable	Oxidizing properties	not applicable

9.2. Other information

VOC Content (%) Not Applicable

Component Information

Chemical name	Mol. Weight	Water Solub.	Vap. Press.	Vap. Dens.	pH Val.	Autoign. Temp.	Evap. Rate	Boil. Temp.
Boron nitride	24.81 g/mol	-	-	-	-	-	-	-
Nickel	58.69 g/mol	-	1 mmHg at	-	-	-	-	-

Chemical name	Density VALUE	Melt. Temp.	Flash Point	Water Sol.	Bulk Dens.	Odor	State	color
Nickel	8.9 g/cm ³ at 25 °C	-	-	insoluble	-	-	-	-

10. Stability and Reactivity

Reactivity

Chemical stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Conditions to avoid incompatible materials

Hazardous decomposition products None known based on information supplied.

11. Toxicological Information

Information on likely routes of exposure

Eye Contact Mild eye irritation.

Ingestion Ingestion is not a likely route of exposure.

Chemical name	Oral LD50	dermal LD50	Inhalation LC50
Nickel	>9000 mg/kg bw	Data waiving - Other Justification	NOAEC >=10.2 mg/L air

Information on toxicological effects

Chemical name	US ACGIH - Critical effects
Nickel	dermatitis; pneumoconiosis

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

Sensitization May cause sensitization by inhalation and skin contact.

Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Chemical name	ACGIH	IARC	NTP: (National Toxicity Program)	OSHA
Nickel	A5 - Not Suspected as a Human Carcinogen	Nickel Compounds: Group 1 - Known Human Carcinogen - Nickel, Metallic & Alloy: Group 2B - Possible Human Carcinogen	Reasonably Anticipated To Be A Human Carcinogen (listed under Nickel compounds and metallic nickel) Present (nanoparticles)	Not Listed
Chemical name	Chile	Argentina	Venezuela	Peru
Nickel	A1 - Confirmed Human Carcinogen	A5 - Not Suspected as a human carcinogen	Present	A1 - Confirmed Human Carcinogen
Chemical name	Canada Alberta	Canada British Coloumbia	Canada Manitoba	Canada Quebec
Nickel	-	IARC Category 2B - Possible Human Carcinogen	A5 Not Suspected as a Human Carcinogen	-

Chronic toxicity May produce an allergic reaction. Listed as probable human carcinogen by IARC (Group 2A). Repeated contact may cause allergic reactions in very susceptible persons.

Target organ effects respiratory system, Skin.

Numerical measures of toxicity No data available

mg/kg

12. Ecological Information

12.1. Ecotoxicity

12.2 Persistence and degradability Product/Substance is inorganic. not applicable.

12.3 Bioaccumulative potential No information available.

12.5 Results of PBT and vPvB assessment The components in this formulation do not meet the criteria for classification as PBT or vPvB

12.6 Other adverse effects None known

13. Disposal Considerations

Waste treatment methods It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Waste from residues/unused products Reuse or recycle.

California Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
Nickel	Toxic Ignitable

14. Transport Information

DOT Not regulated

Chemical name	U.S. - DOT Reportable Quantities	DOT Marine Pollutant	DOT Severe Marine pollutant
Nickel	100 lbs RQ (The RQ for these hazardous substances is limited to those pieces of the metal having a diameter smaller than 100 µm (0.004 inches).); 45.4 kg RQ (The RQ for these hazardous substances is limited to those pieces of the metal having a diameter smaller than 100 µm (0.004 inches).)	-	-

TDG Not regulated

MEX Not regulated

IMO / IMDG Not regulated

ICAO / IATA-DGR Not regulated

15. Regulatory Information

Chemical name	TSCA
Boron nitride	Present
Nickel	Present Added 2012
Chemical name	Bolivia - hazardous substances regulated under Bolivia's Environmental Regulations for the Industrial Manufacturing Sector
Nickel	Present
Chemical name	Chile - Chemical substances identified as dangerous to health by the Government of Chile
Nickel	Present

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Chemical name	CAS-No	weight-%	SARA 313 - Threshold Values %
Boron nitride	10043-11-5	> 50	-
Cobalt Nitride	12139-70-7	5 - 10	-
Nickel	7440-02-0	3 - 5	-

SARA 311/312 Hazard Categories

Acute health hazard	yes
Chronic Health Hazard	yes
Fire Hazard	no
Sudden release of pressure hazard	no
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Nickel	Not Applicable	Present	Present	Not Applicable

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Nickel	100 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 45.4 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)	-	100 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 45.4 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical name	California - Proposition 65 - Carcinogens List	California - Proposition 65 - Developmental Toxicity	California - Proposition 65 - Reproductive Toxicity	California - 22 CCR - Toxic and Extremely Hazardous Carcinogenic Wastes
Nickel	carcinogen, 10/1/1989	-	-	-

	(metallic)		
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U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Nickel	sn 1341	Carcinogen; Extraordinarily hazardous	Environmental hazard; Special hazardous substance Present

CANADA

WHMIS Statement

In the form of a pressed and sintered item, this is a manufactured article and is not a "controlled product" under WHMIS.

Chemical name	WHMIS Classifications of Components
Nickel	D2A, D2B; B6, D2A (Raney)

16. Other Information

Global Automotive Declarable Substance List Classifications

Chemical name	Global Automotive Declarable Substance List Classifications	Global Automotive Declarable Substance List Thresholds
Nickel	Declarable Substance (FI)	0.1 %

NFPA	Health hazard 2	Flammability 0	Instability 0	Physical and Chemical Hazards -
HMIS	Health hazard 2	Flammability 0	Physical hazards 0	Personal precautions X

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Revision Note No information available

Disclaimer

Kennametal urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDS's obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.

End of Safety Data Sheet