EC – Safety data sheet

YETI GmbH

in accordance with REACH Regulation (EC) 1907/2006 including amending regulation (EU) 2020/878
Issue date: August 14, 2010 Replaced: February 1, 2024 Version: 3.0
Safety data sheet number: 11294-0014

SOLIBOND N

Art.963-0250 / 963-1000 Ingots

SECTION 1: Identification of the substance/mixture and company

1.1 Product identifier
Product form: mixture
Product name: Solibond N
1.2.1 Use of the material/type of use: Production of metal frameworks

1.2.2 Uses of for which no further data is available

1.3 Supplier / company name: YETI Dentalprodukte GmbH

Street: Industriestraße 3 Postal code: D-78234 Engen Email: sdb@yeti-dental.com

Information about the substance/preparation: Tel. 0 77 33 / 94 10 0 FAX 0 77 33 / 94 10 22

1.4 Emergency number Tel. 0 77 33 / 94 10 0 (Mon - Thurs 8am - 4.30pm, Friday 8am - 2pm)

SECTION 2: Potential Hazards

2.1.Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Special hazard warnings: the product does not require labeling due to this
For people and the environment the general classification guidelines for preparations of the EC in the latest version.
Users: specialist personnel only
GHS label elements: the following labels do not apply to the
Alloy but for processing possible
fumes, smoke and dust that arise
Hazard statements (CLP) H317 may cause an allergic skin reaction
H351 is believed to cause cancer
H372 damages the respiratory system over long periods of time or
Repeated exposure: Inhalation/inhalation
Precautionary statements (CLP) P260 Dust/fume/gas/mist/vapour/spray not breathe in
P280 Protective gloves/protective clothing/eye protection
Wear face protection/hearing protection.
P308+P313 upon exposure or if concerned: medical advice
Seek advice/medical attention.
P333+P313 If skin irritation or rash occurs: seek medical advice
Seek advice/medical attention.

Keep P405 locked up
P501 Dispose of contents/container in accordance with local/regional/national/ International regulations

2.2 Labeling elements:
Labeling according to Regulation (EC) No. 1272/2008 [CLP]
Signal word (CLP): Danger
The product does not require labeling as an alloy if it meets the criteria of Annex I
Section 1.3.4.1 of CLP is complied with.
The following marking does not apply to the alloy, but rather to the alloy used during assembly
Processing may produce fumes, fumes and gases

2.3 other dangers
During grinding, oxides (silicon, molibdenum) and manganese compounds (chromium oxides) are produced that are harmful to the lungs. Avoid inhaling grinding dust. If necessary, use a suction system. Observe the prescribed dust limit values (6mg/m³). Observe limit values for manganese and chromates.

Does not contain PBT/vPvB substances ≥ 0.1%, assessed according to REACH Annex XIII
The mixture does not contain any substances listed for endocrine-disrupting properties in accordance with REACH Article 59(1) or has been prepared in accordance with the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 determined that it does not contain any substances with endocrine-disrupting properties in a concentration of at least 0.1%.

SECTION 3: Composition/information on ingredients

3.1 Substances: Not applicable. The product is not a substance
3.2 Mixtures: Chemical characterization
Mixture of substances listed below

Ingredients:	
CAS 7440-02-0 EINECS: 231-111-4 Nickel: Carc2,H351; STOT RE1, H372, Skin Sens1, H317	60-65%
CAS 7440-47-3 EINECS.231-157-5 Chromium: Substance for which a community limit value in the workplace applies	22-26%
CAS 7440-21-3 EINECS.231-130-8 Silicon	<2.0%
Ingots / blanks	

Text of H and EUH statements: see section 16

SECTION 4: First aid measures

4.1 Description of first aid measures
General information:
If medical advice is required, have packaging or labeling available. Remove all contaminated clothing immediately and wash before wearing again. First aiders: pay attention to self-protection!
After inhalation:
If breathing is difficult, move the affected person to fresh air and immobilize them in a position that makes breathing easier. If breathing difficulties or respiratory arrest occur, initiate artificial respiration. If there is a risk of unconsciousness, position and transport in a stable side position. Call in a doctor immediately.
after skin contact
Wash off immediately with soap and water and rinse thoroughly. If you have a skin reaction, consult a doctor
After eye contact
Rinse immediately with running water for 10-15 minutes while keeping the eyelids open. Remove existing contact lenses in advance. Visit an ophthalmologist.
After swallowing
Rinse your mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Danger of aspiration. If swallowed, followed by vomiting, aspiration into the lungs may occur, resulting in chemical pneumonia or asphyxia. Call in a doctor immediately.

4.2 Important acute and delayed symptoms and effects
May cause allergy, asthma-like symptoms or breathing difficulties if inhaled.
May cause allergic skin reactions. Product dust can cause eye irritation.
4.3 Information about immediate medical attention or special treatment
Symptomatic treatment

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media: The product is not flammable. Extinguishing agents are according to the align the environment. foam, dry chemical powder,
Carbon dioxide.

Unsuitable extinguishing media: full water jet

5.2 Special hazard: Possible release of toxic fumes. Not a direct one
Danger of explosion. No risk of fire
5.3 Advice for band fighting Do not attempt to work without suitable protective equipment to become. Ambient air dependent Respirator. Full protective clothing.

Material is non-explosive and non-flammable in the atmosphere.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and to be used in emergencies
Proceedings/General measures
Avoid contact with eyes, skin and mucous membranes. Remove any possible source of ignition. Evacuate bystanders.
6.1.1. Non-emergency trained staff
Emergency measures: Only qualified personnel wearing protective equipment may intervene.
Only qualified personnel in suitable protective equipment may intervene. Avoid breathing dust, gas, vapors.

6.1.2. emergency services
protective gear
Do not attempt to operate without appropriate protective equipment. Further information: see section 8 “Exposure controls/personal protection”.

6.2 Environmental protection measures
Avoid release. If the product gets into sewers or public waters,
The authorities must be notified

6.3 Methods and materials for containment and cleaning up
Transfer to a dry container with a clean scoop. Don't compress.
Send substances or residual quantities in solid form to an approved facility

6.4 For further information
see Section 13

SECTION 7: Handling and storage

7.1. Protective measures for safe handling
advice for safe handling
Avoid any resulting dust and vacuum it up. Wear a protective mask. Special before use
Obtain instructions. Read and understand all safety instructions before use. For local
Provide suction or general room ventilation. Observe general hygiene measures.
Do not eat, drink or smoke when using. Always wash hands after handling.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms
Dry premises. Sealed containers. Protect goods from movement. Before
Protect moisture.
Incompatible materials: acids and bases

Storage instructions: Not with food, drinks and animal feed

Further information on storage: None
Storage class (LGK) LGK 6.1D - Non-flammable, acutely toxic Cat. 3 / toxic or chronically acting hazardous substances

SECTION 8: Exposure controls/personal protection

8.1. Parameters to monitor

8.1.1 National occupational exposure limits and biological limits

Nickel (7440-02-0)
Germany - Limiting exposure in the workplace (TRGS 905)
Local name for nickel and nickel compounds, classified as Carc.2
Acceptance concentration (weight conc.) 0.16 µg/m³ (A)
Remarks b) Acceptance concentration associated with risk 4:10,000
Tolerance concentration (weight conc.) 5 µg/m³ (A)
Note (4) Concentrations refer to the elemental content of the corresponding metal.; See TRGS 561
Legal reference TRGS 905
Chrome (7440-47-3)
EU - Indicative Occupational Limit Value (IOEL)
Local name Chromium metal
IOEL TWA 2 mg/m³
Chrome (7440-47-3)
Note (Chromium, anorg. CrII and CrIII compounds, insoluble)
Legal reference COMMISSION DIRECTIVE 2006/15/EC
Germany - Limiting exposure in the workplace (TRGS 900)
Local name chromium and inorganic chromium (II) and (III) compounds
AGW (OEL TWA) [1] 2 mg/m³ (E)
Excess factor/peak limitation 1(I)
Note EU - European Union (an air limit value has been set by the EU: deviations in value and peak limitation are possible); 10 - The occupational exposure limit refers to the element content of the corresponding metal
Legal reference TRGS900

8.1.2. Recommended monitoring procedures: No further information available
8.1.3. Released air contaminants: No further information available
8.1.4. DNEL and PNEC values

Nickel (7440-02-0)
DNEL/DMEL (employee)
Long-term - local effect, inhaled 0.05 mg/m³
DNEL/DMEL (general population)
Long-term - systemic effect, oral 0.05 mg/m³
Long-term - local effect, inhalation
PNEC (water)
PNEC aqua (fresh water) 7.1 µg/l
PNEC aqua (sea water) 8.6 µg/l
PNEC (sediments)
PNEC sediment (fresh water) 109 mg/kg dry weight
PNEC sediment (sea water) 109 mg/kg dry weight
PNEC (soil)
PNEC soil 29.9 mg/kg dry weight
PNEC (STP)
PNEC sewage treatment plant 0.33 mg/l

8.1.5. Control banding No further information available.
8.2. Limitation and monitoring of exposure
8.2.1. Appropriate technical control devices
Appropriate tech. Control devices: Ensure that the workplace is well ventilated.
8.2.2. Personal protective equipment
8.2.2.1. Eye and face protection
Eye protection: Safety glasses with side shields (EN 166)
8.2.2.2. skin protection
Skin and body protection: long-sleeved work clothing (DIN EN ISO 6530).
General protective and hygiene measures
Hand protection:
Chemical-resistant protective gloves. Depending on the application, different requirements may arise. Therefore, the recommendations of the protective glove supplier must also be taken into account.

Hand protection
Type Material Permeation Thickness (mm) Norm Penetration
Impermeable
Protective gloves nitrile rubber (NBR) 6(>480 minutes) 0.4 EN ISO 374

8.2.2.4. Thermal hazards
No further information available
8.2.3. Limiting and monitoring environmental exposure
Limiting and monitoring environmental exposure:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on the basic physical and chemical properties

Physical state	Solid
Color	Silver
Appearance	ingots/cylinders/drops/discs
Odor	Odorless.
Odor threshold	Not available
Melting point	1250 – 1330 °C
Freezing point	Not applicable
Boiling point	Not available
Flammability (solid, gaseous)	Non-combustible.
Explosion limits	Not applicable
Lower explosion limit (LEL)	Not applicable
Upper explosion limit (UEL)	Not applicable
Flash point:	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
pH value	Not applicable
pH solution	Not available
Viscosity, kinematic	Not applicable
Solubility	Not available
distribution coefficient n-Octanol/Water (Log Kow)	Not available
Vapor pressure	Not applicable
Vapor pressure at 50°C	Not available
Density	Not available
Relative density	Not available
Relative vapor density at 20°C	Not applicable

9.2. Other information: Shape fixed
9.2.1. Information about physical hazard classes
No further information available
9.2.2. Other safety-related parameters
No further information available

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport. 10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of dangerous reactions
There are no known dangerous reactions under normal conditions of use.
10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials
Acids and bases.
10.6. Dangerous decomposition products
No hazardous decomposition products should be formed under normal storage and use conditions.

SECTION 11: Toxicological information

11.1. Information on the hazard classes within the meaning of Regulation (EC) No. 1272/2008

Acute toxicity (Oral) Not classified (Based on available data, the classification criteria not met)
Acute toxicity (Dermal) Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) Not classified (Based on available data, the classification criteria are not met)

ATE CLP (oral) 769.231 mg/kg body weight
Nickel (7440-02-0)
LD50 oral rat ≈ 550 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), 95% CL: 215.9 - 1140
LD50 Dermal Rat > 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation – rat ≤ 0.05 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)

Skin corrosion/irritation Not classified (Based on available data, the classification criteria are not met)
pH value: Not applicable
Serious eye damage/irritation causes serious eye irritation.
pH value: Not applicable
Respiratory or skin sensitization May cause allergy, asthma-like symptoms or breathing difficulties if inhaled. May cause allergic skin reactions.
Germ cell mutagenicity Not classified. (Based on available data, the classification criteria are not met)
Carcinogenicity Suspected of causing cancer. Route of exposure: Inhalation
Reproductive toxicity Suspected of affecting fertility.

Specific target organ toxicity
for single exposure Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity
prolonged or repeated exposure causes damage to the respiratory system. Route of exposure: Inhalation/inhalation

Nickel (7440-02-0)
LOAEC (inhalative, rat, dust/mist/smoke, 90 days) 0.31 mg/l air Animal: rat

Aspiration hazard Not classified (Based on available data, the classification criteria are not met)
Additional toxicological information: Grinding produces dust, the composition of which depends on the chemical analysis of the alloy. Essentially oxides are released such as silicon, molybdenum and nickel. Nickel and chromium oxides are also formed

11.2. Information about other dangers
Endocrine disrupting properties None of the ingredients are included

SECTION 12: Ecological information

12.1. toxicity

Ecology – General can be harmful to aquatic organisms with long-term effects.
hazardous to water,
Short-term (acute) Not classified (Based on available data, the classification criteria are not met)
hazardous to water,
long-term (chronic) can be harmful to aquatic organisms, with long-term effects.

Nickel (7440-02-0)
EC50 Daphnia 1 > 890 µg/l Test organisms (species): Daphnia magna
EC50 - Crustaceans [2] 5.89 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability	No further information available
12.3. Bioaccumulative potential	No further information available
12.4. Mobility in soil	No further information available
12.5. Results of PBT and vPvB assessment	No further information available
12.6. Endocrine disrupting properties	No further information available
12.7. Other adverse effects	No further information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods

Dispose of contents/container according to approved collector’s sorting instructions. The waste code/waste name refers to the end product. To be determined by the customer after consultation with a suitable disposal company. May not be disposed of with household waste.

EWC code 06 04 05* Waste containing other heavy metals

14.1 UN number or ID number	
ADR, ADN, IMDG, IATA	not regulated
14.2 UN proper shipping name	
ADR, ADN, IMDG, IATA	not regulated
14.3 Transport hazard classes	
ADR, ADN, IMDG, IATA	not regulated
14.4 Packaging group	
ADR, IMDG, IATA	not regulated
14.5 Environmental hazards:	
Marine pollutant:	not regulated
14.6 Special precautions for the User	not regulated
14.7 Bulk carriage by sea in accordance with	
IMO instruments	not applicable.

Transport/further information: Not dangerous goods according to the above regulations
UN “Model Regulation”: not applicable

SECTION 15: Legislation

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

15.1.1. EU regulations
Directive 2012/18/EU
Hazardous substances listed by name – None of the ingredients contained in Annex I

REACH Annex XVII (List of Restrictions)
Does not contain any substances listed in REACH Annex XVII (restriction conditions).

REACH Annex XIV (approval list)
Does not contain any substances listed in REACH Annex XIV (authorization list).

REACH candidate list (SVHC)
Does not contain any substances listed on the REACH candidate list

PIC Regulation (Prior Informed Consent)
Does not contain any substances listed on the PIC list (Regulation EU 649/2012 on the export and import of dangerous chemicals).

POP Regulation (Persistent Organic Pollutants)
Does not contain any substances listed on the POP list (EU Regulation 2019/1021 on persistent organic pollutants).
Ozone Regulation (1005/2009)
Does not contain any substances that are listed on the ozone depletion list (EU Regulation 1005/2009 on substances that deplete the ozone layer).

Regulation on precursors for explosives (EU 2019/1148)
Does not contain any substances listed on the list of explosives precursors (EU Regulation 2019/1148 on the marketing/use of explosives precursors).

Drug Precursor Regulation (EC 273/2004)
Does not contain any substances that are on the list of drug precursors (EC Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations
Germany
Employment Restrictions
Observe restrictions according to the Maternity Protection Act (MuSchG).
Observe restrictions in accordance with the Youth Employment Protection Act (JArbSchG).
Water hazard class (WGK)
Water hazard class 1 (self-classification): slightly hazardous to water
Do not allow undiluted or large quantities to enter the groundwater, bodies of water or drains

15.2 Chemical safety assessment
A chemical safety assessment was not carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
BKF bioconcentration factor
ATE acute toxicity estimate
DMEL Derived exposure level with minimal adverse effects
DNEL Derived exposure level without adverse effects
IATA Association for International Air Transport
IMDG dangerous goods regulations for international sea transport
RID regulations for the international carriage of dangerous goods by rail
DOT Department of Transportation
TDG dangerous goods transport
REACH Regulation on the Registration, Evaluation, Authorization and Restriction of Chemical Substances, Regulation (EC) No. 1907/2006
GHS Global Harmonized System of Classification and Labeling of Chemicals
IARC International Agency for Research on Cancer
vPvB Very persistent and very bioaccumulative
PBT Persistent, bioaccumulative and toxic substance
PNEC Estimated no-effect concentration
IBC Code International safety regulation for the carriage of hazardous chemicals and harmful liquids in bulk by sea
CLP Regulation on Classification, Labeling and Packaging; Regulation (EC) No. 1272/2008
MARPOL 73/78 MARPOL 73/78: The International Convention for the Prevention of Pollution from Ships
ADG Australian dangerous goods transport
BLV biological limit value
BOD Biochemical Oxygen Demand (BOD)

COD Chemical oxygen demand (COD)
EC no. European Community number
EC50 Average effective concentration
EN European standard
LC50 Concentration lethal for 50% of a test population
LD50 Lethal dose for 50% of a test population (median lethal dose)
LOAEL Lowest dose with observable adverse effect
NOAEC concentration with no observable adverse effect
NOAEL dose with no observable adverse effect
NOEC Highest concentration tested with no observed adverse effects
OECD Organization for Economic Cooperation and Development
OEL workplace limit value
SDB safety data sheet
STP sewage treatment plant

Other Information:
The information in sections 4 to 8 and 10 to 12 is partly not related to the use and proper application of the product (see instructions for use/technical information) but rather to the release of larger quantities in the event of accidents and irregularities. The information solely describes the safety requirements of the product(s) and is based on our current state of knowledge. The delivery specifications can be found in the respective data sheets. They do not represent any guarantee of the properties of the product(s) described within the meaning of the statutory warranty periods.
The product may not be used for purposes other than those specified in Part 1 without written permission. The user is responsible for compliance with all necessary legal regulations.

Full text of H- and EUH-phrases
Skin Sens.1 Skin sensitization, category 1

Classification and procedures used for the preparation and classification of mixtures according to Regulation (EC) 1272/2008 [CLP]
Skin Sens.1 H317 may cause allergic skin reactions Calculation methods
Carc.2 H351 is suspected to cause cancer. Calculation methods
STOT RE1 H372 damages the organs with prolonged or
Repeated exposure calculation methods