

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 01.06.2016

Trade Name: Durabond

1 Identification of the substance/mixture and of the supplier

1.1 Product identifier

Trade Name: Durabond

Synonyms:

Product number: Durabond

1.2 Application of the substance / the mixture : Dental Materials

1.3 Details of the supplier of the Safety Data Sheet

Manufacturer

MATECH, INC.

13000 SAN FERNANDO ROAD

SYLMAR, CA 91342

(818) 367-2472

Emergency telephone number:

Matech, Inc.

818-367-2472

2 Hazards identification

2.1 Classification of the substance or mixture:

In compliance with EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments.

Hazard-determining components of labeling:

Nickel

2.2 Label elements:

Chronic aquatic hazard, category 3.

Skin sensitization, category 1.

Carcinogenicity, category 2.

Specific target organ toxicity - repeated exposure, category 1.

Hazard pictograms:



Signal word: Danger

Hazard statements:

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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P302+P352 If on skin: Wash with soap and water.
 P308+P313 If exposed or concerned: Get medical advice/attention.
 P321 Specific treatment (see supplemental first aid instructions on this label).
 P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
 P363 Wash contaminated clothing before reuse.
 P405 Store locked up.
 P501 Dispose of contents and container as instructed in Section 13.

Additional information: None.

Hazard description

Hazards Not Otherwise Classified (HNOC): None

Information concerning particular hazards for humans and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments, and extended by company and literature data. The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

3 Composition/information on ingredients

3.1 Chemical characterization : Mixture.

3.2 Description : None

3.3 Hazardous components (percentages by weight)

Identification	Chemical Name	Classification	Wt. %
CAS number: 7440-02-0	Nickel	Skin Sens. 1; H317 Stot RE 1; H372 Carc. 2; H351 Aquatic Chronic 3; H412	60-70
CAS number: 7440-47-3	Chromium		20-30
CAS number: 7439-98-7	Molybdenum		<10
CAS number: 7440-21-3	Silicon		<5

3.4 Additional Information : None.

4 First aid measures

4.1 Description of first aid measures

General information: None.

After inhalation:

Maintain an unobstructed airway.
 Loosen clothing as necessary and position individual in a comfortable position.

After skin contact:

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Rinse affected area with soap and water.
If symptoms develop or persist, seek medical attention.

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes.
If symptoms develop or persist, seek medical attention.

After swallowing:

Seek medical attention if irritation, discomfort, or vomiting persists.
Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed

None

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

No additional information.

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

For safety reasons unsuitable extinguishing agents : None

5.2 Special hazards arising from the substance or mixture :

Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Advice for firefighters

Protective equipment:

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Refer to Section 8.

5.4 Additional information :

Avoid contact with skin, eyes and clothing.
Avoid inhaling gases, fumes, dust, mist and vapor.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures :

Ensure air handling systems are operational.
Ensure adequate ventilation.

6.2 Environmental precautions :

Prevent from reaching drains, sewer or waterway.
Should not be released into the environment.

6.3 Methods and material for containment and cleaning up :

Always obey local regulations.
Sweep or scoop up solid material while minimizing dust generation.
Wear protective eye wear, gloves and clothing.

6.4 Reference to other sections : None

7 Handling and storage

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7.1 Precautions for safe handling :

Do not eat, drink, smoke or use personal products when handling chemical substances.
Do not taste or swallow.

7.2 Conditions for safe storage, including any incompatibilities :

Keep container tightly sealed.
Store in a cool, well-ventilated area.
Store away from incompatible materials.

7.3 Specific end use(s):

No additional information.

8 Exposure controls/personal protection



8.1 Control parameters :

7440-47-3, Chromium, ACGIH TLV 8 Hour TWA: 0.5 mg/cu m.
7440-21-3, Silicon, NIOSH 10 hr Time Weighted Avg (TWA):10 mg/cu m (total particulate).
7440-21-3, Silicon , OSHA PEL TWA: 15 mg/m³ (Total Dust).
7440-47-3, Chromium, NIOSH TLV 10 hr Time Weighted Avg (TWA): 0.5 mg/cu m.
7439-98-7, Molybdenum, NIOSH TLV 10 hr Time Weighted Avg (TWA): 5.0 mg/m³.
7440-02-0, Nickel, NIOSH TLV 10 hr Time Weighted Avg (TWA): 0.015 mg/cu m.
7440-02-0, Nickel, OSHA PEL Time Weighted Avg: 1 mg/cu m.
7440-02-0, Nickel, ACGIH TLV 8 Hour TWA: 1.5 mg/cu m, inhalable fraction.
7440-02-0, Chromium, NIOSH IDLH: 250 mg/cu m (as Cr).
7439-98-7, Molybdenum, ACGIH TLV 8 Hour TWA: 10 mg/cu m (Inhalable fraction).
7440-21-3, Silicon, NIOSH 10 hr Time Weighted Avg (TWA): 5 mg/m³ (respiratory fraction).

8.2 Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Protection of skin:

Wear appropriate clothing to prevent any possibility of skin contact.
Select glove material impermeable and resistant to the substance.

Eye protection:

Safety glasses or goggles are appropriate eye protection.

General hygienic measures:

Avoid contact with skin, eyes and clothing.
Wash hands before breaks and at the end of work.

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9 Physical and chemical properties

Appearance (physical state, color):	Platinum color	Explosion limit lower: Explosion limit upper:	Not determined or not available. Not determined or not available.
Odor:	Odorless	Vapor pressure at 20°C:	Not determined or not available.
Odor threshold:	Not determined or not available.	Vapor density:	Not determined or not available.
pH-value:	Not determined or not available.	Relative density:	7.6 gm/cc
Melting/Freezing point:	2450°F	Solubilities:	Insoluble
Boiling point/Boiling range:	Not determined or not available.	Partition coefficient (n-octanol/water):	Not determined or not available.
Flash point (closed cup):	Not determined or not available.	Auto/Self-ignition temperature:	Not determined or not available.
Evaporation rate:	Not determined or not available.	Decomposition temperature:	Not determined or not available.
Flammability (solid, gaseous):	Not determined or not available.	Viscosity:	a. Kinematic: Not determined or not available. b. Dynamic: Not determined or not available.
Density at 20°C:	Not determined or not available.		

10 Stability and reactivity

10.1 Reactivity :

Nonreactive under normal conditions.

10.2 Chemical stability :

Stable under normal conditions of use and storage.

10.3 Possibility hazardous reactions :

None identified.

10.4 Conditions to avoid :

Incompatible materials.

10.5 Incompatible materials :

Strong acids, bases, and oxidizing agents.

10.6 Hazardous decomposition products :

Thermal decomposition can lead to release of irritating gases and vapors.

11 Toxicological information

11.1 Information on toxicological effects :

Acute Toxicity:

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Oral:

Molybdenum: LD50 Rat: > 5,000 mg/kg .

Dermal:

Molybdenum: LD50 Rat: > 2,000 mg/kg .

Inhalation:

Molybdenum: LD50 Rat: 4 h > 5.84 mg/l .

Chronic Toxicity: No additional information.

Skin corrosion/irritation: No additional information.

Serious eye damage/irritation: No additional information.

Respiratory or skin sensitization: No additional information.

Carcinogenicity: No additional information.

IARC (International Agency for Research on Cancer):

Group 2B - Possibly carcinogenic to humans: Nickel.

NTP (National Toxicology Program):

Reasonably anticipated to be human carcinogens: Nickel.

Germ cell mutagenicity: No additional information.

Reproductive toxicity: No additional information.

STOT-single and repeated exposure: No additional information.

Additional toxicological information: No additional information.

12 Ecological information

12.1 Toxicity:

Chromium: Fish, LC50 - Cyprinus carpio (Carp) - 14.3 mg/l - 96 h.

Chromium: Aquatic invertebrates, EC50 - Daphnia magna (Water flea) - 0.07 mg/l - 48 h.

Nickel: Fish, LC50 - Cyprinus carpio (Carp) - 1.3 mg/l - 96 h.

Molybdenum: Fish, LC50 - Oncorhynchus mykiss (rainbow trout) - 800 mg/l - 96 h.

Nickel: Aquatic invertebrates, EC50 - Daphnia magna (Water flea) - 1 mg/l - 48 h.

12.2 Persistence and degradability: No additional information.

12.3 Bioaccumulative potential: No additional information.

12.4 Mobility in soil: No additional information.

General notes: No additional information.

12.5 Results of PBT and vPvB assessment:

PBT: No additional information.

vPvB: No additional information.

12.6 Other adverse effects: No additional information.

13 Disposal considerations

13.1 Waste treatment methods (consult local, regional and national authorities for proper disposal)

Relevant Information:

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It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities. (US 40CFR262.11).

14 Transport information

14.1 UN Number: ADR, ADN, DOT, IMDG, IATA	Not regulated																		
14.2 UN Proper shipping name: ADR, ADN, DOT, IMDG, IATA	Not regulated.																		
14.3 Transport hazard classes: ADR, ADN, DOT, IMDG, IATA	<table> <tr> <td>Class:</td> <td>None</td> </tr> <tr> <td>Label:</td> <td>None</td> </tr> <tr> <td>LTD. QTY:</td> <td>None</td> </tr> </table>	Class:	None	Label:	None	LTD. QTY:	None												
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14.4 Packing group: ADR, ADN, DOT, IMDG, IATA	Not regulated.																		
14.5 Environmental hazards :	None																		
14.6 Special precautions for user:	None																		
Danger code (Kemler):	None																		
EMS number:	None																		
Segregation groups:	None																		
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.																		
14.8 Transport/Additional information:																			
Transport category:	None																		
Tunnel restriction code:	None																		
UN "Model Regulation":	Not regulated, Not regulated																		

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

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7440-02-0 Nickel.

7440-47-3 Chromium.

Section 302 (extremely hazardous substances): None of the ingredients are listed.**CERCLA (Comprehensive Environmental Response, Clean up and Liability Act) Reportable****Spill Quantity:**

7440-47-3 Chromium 5000.

7440-02-0 Nickel 100.

TSCA (Toxic Substances Control Act):**Inventory:**

7440-21-3 Silicon.

7439-98-7 Molybdenum.

7440-02-0 Nickel.

7440-47-3 Chromium.

Rules and Orders: Not applicable.**Proposition 65 (California):****Chemicals known to cause cancer:**

7440-02-0 Nickel.

Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed.**Chemicals known to cause reproductive toxicity for males:** None of the ingredients are listed.**Chemicals known to cause developmental toxicity:** None of the ingredients are listed.**Canadian****Canadian Domestic Substances List (DSL):**

7440-02-0 Nickel.

7439-98-7 Molybdenum.

7440-21-3 Silicon.

7440-47-3 Chromium.

EU**REACH Article 57 (SVHC):** None of the ingredients are listed.**Germany MAK:** Not classified.**Asia Pacific****Australia****Australian Inventory of Chemical Substances (AICS):** All ingredients are listed.**China****Inventory of Existing Chemical Substances in China (IECSC):** All ingredients are listed.**Japan****Inventory of Existing and New Chemical Substances (ENCS):** All ingredients are listed.

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Korea

Existing Chemicals List (ECL): All ingredients are listed.

New Zealand

New Zealand Inventory of Chemicals (NZOIC): All ingredients are listed.

Philippines

Philippine Inventory of Chemicals and Chemical Substances (PICCS): All ingredients are listed.

Taiwan

Taiwan Chemical Substance Inventory (TSCI): All ingredients are listed.

16 Other information

Abbreviations and Acronyms:

CAS Chemical Abstracts Service (division of the American Chemical Society).

TLV Threshold Limit Value.

TDG Transportation of Dangerous Goods.

TWA Time-Weighted Average.

VOC Volatile Organic Compound.

WEEL Workplace Environmental Exposure Limit (see AIHA).

vPvBs Very Persistent and Very Bioaccumulative substances.

STEL Short-Term Exposure Limit.

SNUR Significant New Use Rule (see TSCA).

NFPA National Fire Protection Association (USA).

N/A Not Applicable.

ACGIH American Conference of Governmental Industrial Hygienists.

PBTs Persistent, Bioaccumulative and Toxic substances.

PEL Permissible Exposure Limit.

SARA Superfund Amendments and Reauthorization Act (USA).

RCRA Resource Conservation and Recovery Act (USA).

DOT US Department of Transportation.

HMIS Hazardous Materials Identification System (USA).

LC50 Median Lethal Concentration.

IATA International Air Transportation Association.

LD50 Median Lethal Dose.

n.o.s. Not Otherwise Specified.

TSCA Toxic Substances Control Act (USA).

Summary of Phrases

Hazard statements:

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 If on skin: Wash with soap and water.

P308+P313 If exposed or concerned: Get medical advice/attention.

P321 Specific treatment (see supplemental first aid instructions on this label).

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents and container as instructed in Section 13.

Manufacturer Statement:

It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. The information contained herein is, to the best of our knowledge and belief, accurate. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The responsibility to provide a safe workplace remains with the user.

NFPA: 2-0-0**HMIS:** 2-0-0