

Trade name: EMF-Lote (REF 52622)**Current version :** 1.0.0, issued: 07.01.2025**Replaced version:** -, issued: -**Region:** USA**SECTION 1: Identification****1.1 Product identifier**

Trade name

EMF-Lote (REF 52622)**1.2 Recommended use of the chemical and restrictions on use****Recommended use of the chemical and restrictions on use**

Manufacturing of dental prosthesis in a dental laboratory

Restrictions on use

No data available.

1.3 Details of the supplier of the safety data sheet**Address**BEGO USA. Inc.
24 Albion Road, Suite 103
Lincoln RI 02865Telephone no. 401-334-9261
e-mail begoinfo@begousa.com**1.4 Emergency phone number**BEGO USA
+1 401-334-9261 (8.30 a.m - 5.00 p.m EST)**SECTION 2: Hazard(s) identification****2.1 Classification of the chemical****Classification of the chemical in accordance with paragraph (d) of 29 CFR § 1910.1200 "Hazard Communication"**

Carcinogenicity - Category 1B

Germ Cell Mutagenicity - Category 2

Reproductive Toxicity - Category 1B

Respiratory sensitization - Category 1

Skin sensitization - Category 1

Specific Target Organ Toxicity - Repeated or Prolonged Exposure - Category 1

2.2 Label elements**Pictogram(s)****Signal word**

Danger

Hazard Statement(s)

Health hazards

May cause an allergic skin reaction
May cause allergy or asthma symptoms or breathing difficulties if inhaled
Suspected of causing genetic defects
May cause cancer.
May damage fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.**Precautionary Statement(s)**

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Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.
Response	If on skin: Wash with plenty of water. If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. Specific treatment (see first aid instruction on this label). If experiencing respiratory symptoms: Call a poison center/doctor. Wash contaminated clothing before reuse.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Labelling information

No data available

2.4 Hazards not otherwise classified (HNOC)

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

No	Substance name	Concentration	%
	CAS no.		
1	nickel powder; [particle diameter < 1 mm]		
	7440-02-0	>= 25.00 - < 50.00	%-b.w.
2	cobalt		
	7440-48-4	>= 25.00 - < 50.00	%-b.w.

3.3 Other information

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of 29 CFR 1910.1200

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General information

In case of allergic symptoms, especially respiratory tract related, seek medical help immediately.

After inhalation

Ensure supply of fresh air. Remove affected person from the immediate area. When vapours are intensively inhaled, seek medical help immediately.

After skin contact

Wash off immediately with soap and water.

After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart and seek medical advice.

After ingestion

Call a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

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4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Metal fire powders; Sand

Unsuitable extinguishing media

Water; Foam; Carbon dioxide; Dry chemicals

5.2 Specific hazards arising from the chemical

No data available.

5.3 Special protective equipment and precautions for fire-fighters

Use self-contained breathing apparatus. Adapt extinguisher and fire-fighting measures to fire in the environment. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Ensure adequate ventilation. Do not inhale vapours. Avoid dust formation. Refer to protective measures listed in sections 7 and 8.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Methods and materials for containment and cleaning up

Collect mechanically. Avoid raising dust. When collected, handle material as described under the section heading "Disposal considerations".

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions for safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary).

General protective and hygiene measures

Wash hands before breaks and after work. Do not eat, drink or smoke during work time. Remove soiled or soaked clothing immediately. Keep away from foodstuffs and beverages. Do not inhale vapours or dust.

Advice on protection against fire and explosion

Dust can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed in a well-ventilated place.

Requirements for storage rooms and vessels

No special measures required.

Incompatible products

Do not store together with: explosive substances

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limit(s)

No	Substance name	CAS no.
1	nickel powder; [particle diameter < 1 mm]	7440-02-0

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ACGIH Threshold Limit Values			
Nickel, elemental			
TWA	1,5 (l)	mg/m ³	
Remarks	A5		
OSHA Permissible Exposure Limits (PELS)			
Nickel, metal and insoluble compounds (as Ni)			
TWA	1	mg/m ³	
OSHA Permissible Exposure Limits (PELS)			
Nickel, soluble compounds (as Ni)			
TWA	1	mg/m ³	
2	cobalt	7440-48-4	
ACGIH Threshold Limit Values			
Cobalt and inorganic compounds, as Co			
TWA	0,02 (l)	mg/m ³	
Skin resorption / sensibilisation			
Remarks	DSEN; RSEN; A3; BEI		
OSHA Permissible Exposure Limits (PELS)			
Cobalt metal (as Co) dust and fume			
TWA	0.1	mg/m ³	
3	chromium	7440-47-3	
ACGIH Threshold Limit Values			
Chromium			
TWA	0,5 (l)	mg/m ³	
OSHA Permissible Exposure Limits (PELS)			
Chromium metal and insoluble salts (as Cr)			
TWA	1	mg/m ³	
4	Silicon	7440-21-3	
OSHA Permissible Exposure Limits (PELS)			
Silicon Total dust			
TWA	15	mg/m ³	
OSHA Permissible Exposure Limits (PELS)			
Silicon Respirable fraction			
TWA	5	mg/m ³	
5	molybdenum	7439-98-7	
ACGIH Threshold Limit Values			
Molybdenum, as Mo, Metal and insoluble compounds			
TWA	10 (l)	mg/m ³	
Skin resorption / sensibilisation			
ACGIH Threshold Limit Values			
Molybdenum, as Mo, Metal and insoluble compounds			
TWA	3 (R)	mg/m ³	
Skin resorption / sensibilisation			

8.2 Exposure controls

Appropriate engineering controls

No data available.

Individual protection measures, such as personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield

Hand protection

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In case of thermal processing, thermally insulating protective gloves are to be used. Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other protection measures

Normal chemical work clothing.

SECTION 9: Physical and chemical properties

Form/Color	
solid	
white	
Odor	
odorless	
Odor threshold	
No data available	
pH value	
No data available	
Boiling point / boiling range	
No data available	
Melting point / melting range	
Value	1020 - 1150 °C
Remarks	The various products have different melting intervals within the indicated melting range.
Decomposition point / decomposition range	
No data available	
Flash point	
No data available	
Auto-ignition temperature	
No data available	
Oxidising properties	
No data available	
Explosive properties	
No data available	
Flammability	
No data available	
Lower flammability or explosive limits	
No data available	
Upper flammability or explosive limits	
No data available	
Vapor pressure	
No data available	
Vapor density	
No data available	
Evaporation rate	
No data available	
Relative density	
No data available	
Density	

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Value	8.2 - 8.5 g/cm ³
Solubility in water	
Remarks	insoluble
Solubility(ies)	
No data available	
Partition coefficient: n-octanol/water	
No data available	
Viscosity	
No data available	
Other information	
Other information	
No data available.	

SECTION 10: Stability and reactivity

10.1 Reactivity

Dangerous reactions are not expected if the product is handled according to its intended use.

10.2 Chemical stability

Stable under recommended storage and handling conditions(See section 7).

10.3 Possibility of hazardous reactions

Possible hydrogen formation upon contact with acids.

10.4 Conditions to avoid

None, if handled according to intended use.

10.5 Incompatible materials

Acids

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

Information on toxicological effects

Acute oral toxicity
No data available
Acute dermal toxicity
No data available
Acute inhalational toxicity
No data available
Skin corrosion/irritation
No data available
Serious eye damage/irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Reproduction toxicity
No data available
Carcinogenicity
No data available

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NTP Report on Carcinogens (RoC)

The product contains following substance(s) listed "known" (to be a human carcinogen) or "RAHC" (reasonably anticipated to be a human carcinogen)

No	Substance name	CAS no.	No
1	cobalt	7440-48-4	RAHC, RAHC
2	nickel powder; [particle diameter < 1 mm]	7440-02-0	RAHC

OSHA Standards listing cancer as a health effect (Table VII.6.2)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) listed as carcinogenic.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

The product contains following substance(s) classified by the IARC Monographs

No	Substance name	CAS no.	Group
1	chromium	7440-47-3	3
2	cobalt	7440-48-4	2B, 2A
3	nickel powder; [particle diameter < 1 mm]	7440-02-0	2B

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration hazard

No data available

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

Inhalation of vapours in high concentration may cause metal fume fever and may cause damage of the central nervous system in case of repeated and prolonged exposure. Repeated and prolonged exposure to high dust concentrations may lead to irritation of the respiratory tract. Inhalation of metal-containing dusts may cause acute poisoning, leading to nausea, vomiting and abdominal pain. Extended exposition through inhalation of nickel dust and flue gas may lead to lesions, incl. fibrosis. Nickel contaminated dust that is transferred by the ambient air is considered cancer-causing when entering the depths of the respiratory tract. Metallic nickel and all its compounds may have a sensitising effect, in particular with persons with general proneness to allergies.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)

No data available

Toxicity to fish (chronic)

No data available

Toxicity to Daphnia (acute)

No data available

Toxicity to Daphnia (chronic)

No data available

Toxicity to algae (acute)

No data available

Toxicity to algae (chronic)

No data available

Bacteria toxicity

No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

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12.4 Mobility in soil

No data available.

12.5 Other adverse effects

No data available.

12.6 Other information

Other information

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Disposal considerations

Product

Dispose in accordance with federal, state and local regulations.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in accordance with federal, state and local regulations.

SECTION 14: Transport information

14.1 US DOT (Department of Transportation)

The product is not subject to DOT regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, pls. see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

15.1 US Federal Regulations

Toxic Substances Control Act (TSCA)

According to the data available and/or specifications supplied by upstream suppliers, all components of this product are on the TSCA Inventory listed as active or are exempted from notification requirements.

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act)

The product contains following substance(s) that are considered being subject to Table 302.4 "List of Hazardous Substances and Reportable Quantities"

No	Substance name	CAS no.
1	chromium	7440-47-3
2	cobalt	7440-48-4
3	nickel powder; [particle diameter < 1 mm]	7440-02-0

Clean Air Act (CAA): Hazardous Air Pollutants (HAPS)

The product contains following substance(s) that are considered being "Hazardous Air Pollutants".

No	Substance name	CAS no.
1	cobalt	7440-48-4

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Clean Water Act (CWA) Section 307 (Toxic Pollutants) and Section 311 (Hazardous Substances)

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	chromium	7440-47-3
2	nickel powder; [particle diameter < 1 mm]	7440-02-0

EPCRA SARA Section 313, Toxic Chemical Release Inventory

The product contains following substance(s) that are considered being subject to "SARA Reporting".

No	Substance name	CAS no.
1	chromium	7440-47-3
2	cobalt	7440-48-4
3	nickel powder; [particle diameter < 1 mm]	7440-02-0

Emergency Planning & Community Right-to-Know Act (EPCRA) - Sections 302 and 304

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) that are considered being subject to reporting requirements.

Clean Air Act (CAA) - Section 602 Ozone depleting substances

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) listed as ozone depleting substance.

15.2 US State Regulations

Pennsylvania State Right to Know Hazardous Substance List

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	chromium	7440-47-3
2	cobalt	7440-48-4
3	molybdenum	7439-98-7
4	nickel powder; [particle diameter < 1 mm]	7440-02-0
5	Silicon	7440-21-3

New Jersey State Right to Know Hazardous Substance List

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	BORON	7440-42-8
2	chromium	7440-47-3
3	cobalt	7440-48-4
4	molybdenum	7439-98-7
5	nickel powder; [particle diameter < 1 mm]	7440-02-0
6	Silicon	7440-21-3

Massachusetts State Right to Know Hazardous Substance List

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	chromium	7440-47-3
2	cobalt	7440-48-4
3	molybdenum	7439-98-7
4	nickel powder; [particle diameter < 1 mm]	7440-02-0
5	Silicon	7440-21-3

California Code of Regulations Title 8 §339, Hazardous Substances List

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	chromium	7440-47-3
2	cobalt	7440-48-4
3	iron	7439-89-6
4	molybdenum	7439-98-7
5	nickel powder; [particle diameter < 1 mm]	7440-02-0

Right to Know - California State - Proposition 65

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.	type of toxicity
1	cobalt	7440-48-4	cancer

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2	nickel powder; [particle diameter < 1 mm]	7440-02-0	cancer
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SECTION 16: Other information, including date of preparation or last revision

16.1 Other information

No data available.

16.2 Date of preparation/revision of the SDS

Current version	1.0.0	07.01.2025
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16.3 Department issuing safety data sheet

UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de

16.4 Conclusions

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not, however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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Prod-ID 806188

16.5 Key / Legend

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5E - indicates a substance that is the subject of a TSCA section 5(e) order
5F - indicates a substance that is the subject of a TSCA section 5(f) rule
ACGIH - American Conference of Governmental Industrial Hygienists
ATE – Acute Toxicity Estimate
BOD - Biochemical Oxygen Demand
CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*;
CAS - Chemical Abstracts Service
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
CFR - Code of Federal Regulations (US)
CLP - Classification, Labelling, and Packaging
DOT - Department of Transportation Commission
ECHA – European Chemicals Agency
EC / EL – Effective Concentration / Effective Loading
EPA - Environmental Protection Agency
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC – Intermediate Bulk Container
ICAO - International Civil Aviation Organization
IDL - Ingredient Disclosure List
IDLH - Immediately Dangerous to Life and Health
IMDG - International Maritime Dangerous Goods
IUCRID - International Uniform Chemical Information Database
Kow - Octanol/water partition coefficient
LD/LC - Lethal Dose/ Lethal Concentration
MARPOL – Marine Pollution
MEL - Maximum Exposure Limits
NFPA - National Fire Protection Agency
NIOSH - National Institute for Occupational Safety and Health
NJTSR - New Jersey Trade Secret Registry
NOEL/NOEC – No Observed Effect Level / No Observed Effect Concentration
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL- Permissible Exposure Limit
PMN - indicates a commenced Pre Manufacture Notice substance
RCRA - Resource Conservation and Recovery Act
S - indicates a substance that is identified in a final Significant New Use Rule
SARA - Superfund Amendments and Reauthorization Act
SP - indicates a substance that is identified in a proposed Significant New Use Rule
STEL - Short-term Exposure Limit
STOT – Specific Target Organ Toxicity
T - indicates a substance that is the subject of a final TSCA section 4 test rule or order
TDG - Transportation of Dangerous Goods
TLV - Threshold Limit Value
TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule or order
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average
UN/NA - United Nations /North American
US - United States
VLE - Exposure Limit Value (Mexico)
VOC – Volatile Organic Compounds
XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule