

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : Nuline MAX 10  
CAS-No. : Mixture  
Product code : 7224  
Other means of identification : Resin Bonded Alumina Magnesia-Carbon Brick

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Refractory Brick  
Recommended use : Industrial use

#### 1.3. Supplier

Resco Products, Inc.  
One Robinson Plaza, Suite 300  
6600 Steubenville Pike  
Pittsburgh, PA, 15205  
United States  
412-494-4491  
[SDS@RescoProducts.com](mailto:SDS@RescoProducts.com) - [WWW.RescoProducts.com](http://WWW.RescoProducts.com)

#### 1.4. Emergency telephone number

Emergency number : EMERGENCY ONLY (CHEMTREC) USA & Canada 1-800-424-9300  
Outside USA & Canada +1 703-741-5970

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Germ cell mutagenicity, Category 1B H340 May cause genetic defects.  
Carcinogenicity, Category 1A H350 May cause cancer.  
Full text of H-statements: see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger  
Hazard statements (GHS US) : H340 - May cause genetic defects.  
H350 - May cause cancer.  
Precautionary statements (GHS US) : P202 - Do not handle until all safety precautions have been read and understood.  
P280 - Wear Safety shoes, protective clothing, eye protection, protective gloves.  
P261 - Avoid breathing dust.

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Magnesium Oxide	CAS-No.: 1309-48-4	75 – 95	Not classified
graphite	CAS-No.: 7782-42-5	5 – 10	Not classified
aluminium oxide, non-fibrous	CAS-No.: 1344-28-1	1 – 5	Not classified
Phenolic Resin	CAS-No.: 108-95-2	1 – 5	Not classified
Aluminum - metal powder	CAS-No.: 7429-90-5	1 – 5	Not classified
Coal Tar Pitch	CAS-No.: 65996-93-2	0.5 – 1	Muta. 1B, H340 Carc. 1A, H350

Full text of hazard classes and H-statements : see section 16

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### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Gently wash with plenty of soap and water.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Rinse mouth. Get medical advice/attention if you feel unwell. Do not induce vomiting.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure through inhalation.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes eye irritation.

#### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: In case of fire, all extinguishing media allowed.

#### 5.2. Specific hazards arising from the chemical

Fire hazard	: Product will not burn, but does contain small quantities of chemicals which can generate toxic and/or irritating vapors when initially heated. Under fire conditions hazardous combustion products such as carbon monoxide may be generated.
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#### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire with normal precautions from a reasonable distance.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Protective equipment	: Safety shoes. Safety glasses. Protective gloves.
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##### 6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
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#### 6.2. Environmental precautions

No additional information available

#### 6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Collect spillage. Mechanically recover the product.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling	: Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Do not breathe Dust when sawing or tear out.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store this product in a dry location where it can be protected from the elements.
Incompatible products	: Strong acids. Oxidizing agent.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Nuline MAX 10 (Mixture)

No additional information available

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<b>Magnesium Oxide (1309-48-4)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	10 mg/m <sup>3</sup> inhalable dust
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL TWA [1]	10 mg/m <sup>3</sup> respirable dust
<b>graphite (7782-42-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	2 mg/m <sup>3</sup> (Respirable fraction)
<b>Phenolic Resin (108-95-2)</b>	
No additional information available	
<b>Coal Tar Pitch (65996-93-2)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	0.2 mg/m <sup>3</sup> (Coal tar pitch volatiles, as benzene soluble aerosol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
<b>Aluminum - metal powder (7429-90-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	1 mg/m <sup>3</sup> (Respirable fraction)
<b>aluminium oxide, non-fibrous (1344-28-1)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	1 mg/m <sup>3</sup> respirable dust
<b>8.2. Appropriate engineering controls</b>	
Appropriate engineering controls : Dust when sawing or tear out. Provide adequate ventilation to minimize dust concentrations.	
<b>8.3. Individual protection measures/Personal protective equipment</b>	
<b>Personal protective equipment:</b> Avoid all unnecessary exposure.	
<b>Hand protection:</b> Wear protective gloves.	
<b>Eye protection:</b> Chemical goggles or safety glasses	
<b>Skin and body protection:</b> Wear suitable protective clothing	
<b>Respiratory protection:</b> Dust when sawing or tear out. Wear appropriate mask	
<b>SECTION 9: Physical and chemical properties</b>	
<b>9.1. Information on basic physical and chemical properties</b>	
Physical state	: Solid
Appearance	: Solid in various shapes.
Colour	: Black
Odour	: Resin Odor
Odour threshold	: No data available
pH	: No data available
Melting point	: > 2800 °F
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available

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Flammability (solid, gas)	: Not flammable.
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: ≈ 2.9
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

May release smoke when heated. Combustion products include carbon monoxide, carbon dioxide, and hydrocarbon vapors.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### Magnesium Oxide (1309-48-4)

LD50 oral rat	> 5000 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Rabbit, Literature study, Dermal)

#### graphite (7782-42-5)

LD50 oral rat	> 2000 mg/kg (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat	> 2000 mg/m <sup>3</sup> air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))

#### Coal Tar Pitch (65996-93-2)

LD50 oral rat	> 15000 mg/kg bodyweight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

#### aluminium oxide, non-fibrous (1344-28-1)

LD50 oral rat	> 15900 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))

Skin corrosion/irritation : Not classified

#### Magnesium Oxide (1309-48-4)

pH	11 (10 %)
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<b>graphite (7782-42-5)</b>	
pH	7 (1.3 %)
<b>aluminium oxide, non-fibrous (1344-28-1)</b>	
pH	9 – 10.5 (aqueous suspension, 33 %)
Serious eye damage/irritation	: Not classified
<b>Magnesium Oxide (1309-48-4)</b>	
pH	11 (10 %)
<b>graphite (7782-42-5)</b>	
pH	7 (1.3 %)
<b>aluminium oxide, non-fibrous (1344-28-1)</b>	
pH	9 – 10.5 (aqueous suspension, 33 %)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: May cause cancer.
<b>Phenolic Resin (108-95-2)</b>	
IARC group	3 - Not classifiable
<b>Coal Tar Pitch (65996-93-2)</b>	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
<b>Magnesium Oxide (1309-48-4)</b>	
Viscosity, kinematic	Not applicable (solid)
<b>aluminium oxide, non-fibrous (1344-28-1)</b>	
Viscosity, kinematic	Not applicable (solid)
Symptoms/effects after inhalation	: May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure through inhalation.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes eye irritation.
<b>SECTION 12: Ecological information</b>	
<b>12.1. Toxicity</b>	
<b>graphite (7782-42-5)</b>	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Behaviour)
EC50 72h - Algae [1]	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)
EC50 72h - Algae [2]	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Cell numbers)
<b>Coal Tar Pitch (65996-93-2)</b>	
LC50 - Fish [1]	128 mg/l (LL50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pagrus major; Semi-static system; Salt water; Experimental value)

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<b>Coal Tar Pitch (65996-93-2)</b>	
EC50 - Crustacea [1]	> 100 mg/l (EL50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 - Fish [2]	100-1000,LL50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oryzias latipes; Semi-static system; Fresh water; Experimental value
Threshold limit - Algae [1]	220 mg/l (EL50; OECD 201: Alga, Growth Inhibition Test; 72 h; Desmodesmus subspicatus; Static system; Fresh water; Experimental value)
<b>aluminium oxide, non-fibrous (1344-28-1)</b>	
LC50 - Fish [1]	> 100 mg/l (96 h, Salmo trutta, Literature study)
EC50 - Crustacea [1]	> 100 mg/l (48 h, Daphnia magna, Literature study)
<b>12.2. Persistence and degradability</b>	
<b>Magnesium Oxide (1309-48-4)</b>	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
<b>graphite (7782-42-5)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
<b>Coal Tar Pitch (65996-93-2)</b>	
Persistence and degradability	No test data available. Adsorbs into the soil.
<b>Aluminum - metal powder (7429-90-5)</b>	
Persistence and degradability	Biodegradability in soil: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
<b>aluminium oxide, non-fibrous (1344-28-1)</b>	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
<b>12.3. Bioaccumulative potential</b>	
<b>Magnesium Oxide (1309-48-4)</b>	
Bioaccumulative potential	No bioaccumulation data available.
<b>graphite (7782-42-5)</b>	
Bioaccumulative potential	Not bioaccumulative.
<b>Coal Tar Pitch (65996-93-2)</b>	
Bioaccumulative potential	No test data available.
<b>Aluminum - metal powder (7429-90-5)</b>	
Bioaccumulative potential	No test data of component(s) available.

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<b>aluminium oxide, non-fibrous (1344-28-1)</b>		
Bioaccumulative potential	No data available.	
<b>12.4. Mobility in soil</b>		
<b>Magnesium Oxide (1309-48-4)</b>		
Surface tension	No data available in the literature	
Ecology - soil	No data available.	
<b>Coal Tar Pitch (65996-93-2)</b>		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	Koc,12600-800000; Calculated value; log Koc; 4.1-5.9; Calculated value	
<b>Aluminum - metal powder (7429-90-5)</b>		
Ecology - soil	Contains component(s) that adsorb(s) into the soil.	
<b>aluminium oxide, non-fibrous (1344-28-1)</b>		
Surface tension	No data available in the literature	
Ecology - soil	No data available.	
<b>12.5. Other adverse effects</b>		
No additional information available		
<b>SECTION 13: Disposal considerations</b>		
<b>13.1. Disposal methods</b>		
Product/Packaging disposal recommendations	: Do not discharge into the sewer.	
<b>SECTION 14: Transport information</b>		
In accordance with DOT / TDG / IMDG / IATA <b>Department of Transportation (DOT)</b> In accordance with DOT Not regulated <b>Transportation of Dangerous Goods</b> Not regulated <b>Transport by sea</b> Not regulated <b>Air transport</b> Not regulated		
<b>SECTION 15: Regulatory information</b>		
<b>15.1. US Federal regulations</b>		
<b>Nuline MAX 10 (Mixture)</b>		
Note	This information must be included in all SDS's that are copied and distributed for this material.	
All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:		
Aluminum - metal powder	CAS-No. 7429-90-5	1 – 5%
<b>Phenolic Resin (108-95-2)</b>		
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)		
CERCLA RQ	1000 lb	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb	
SARA Section 302 Threshold Planning Quantity (TPQ)	10000 lb 500lb if the substance is solid in powder form with particle size less than 100 microns, or is in solution or molten form	

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Aluminum - metal powder (7429-90-5)	
Note	This information must be included in all SDS's that are copied and distributed for this material.

aluminium oxide, non-fibrous (1344-28-1)	
Not subject to reporting requirements of the United States SARA Section 313	
Note	Note: The section 313 chemical list contains "CAS # 1344-28-1 Aluminum Oxide (Fibrous forms)"; the Aluminum oxide contained in this product is non-fibrous, and thus is not a section 313 material. Only manufacturing, processing, or otherwise use of aluminum oxide in the fibrous form triggers reporting.

### 15.2. International regulations

#### CANADA

Magnesium Oxide (1309-48-4)	
Listed on the Canadian DSL (Domestic Substances List)	

graphite (7782-42-5)	
Listed on the Canadian DSL (Domestic Substances List)	

Phenolic Resin (108-95-2)	
Listed on the Canadian DSL (Domestic Substances List)	

Coal Tar Pitch (65996-93-2)	
Listed on the Canadian DSL (Domestic Substances List)	

aluminium oxide, non-fibrous (1344-28-1)	
Listed on the Canadian DSL (Domestic Substances List)	

#### EU-Regulations

No additional information available

#### National regulations

Coal Tar Pitch (65996-93-2)	
Listed on IARC (International Agency for Research on Cancer)	

### 15.3. US State regulations

Nuline MAX 10 (Mixture)	
U.S. - California - Proposition 65 - Other information	This product contains coal tar pitch, a chemical known to the State of California to cause cancer. For more information go to <a href="http://WWW.P65Warnings.ca.gov">WWW.P65Warnings.ca.gov</a>

Component	State or local regulations
Magnesium Oxide (1309-48-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Graphite (7782-42-5)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Phenolic Resin (108-95-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Coal Tar Pitch (65996-93-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List
aluminium oxide, non-fibrous (1344-28-1)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 7/10/2023  
Other information : Report language name. English. In the event of any conflict between the English and other language versions, the English version shall prevail.

Full text of H-statements	
H340	May cause genetic defects.
H350	May cause cancer.

Safety Data Sheet (SDS), USA

This information and recommendations set forth herein are taken from sources believed to be accurate as of the date herein, however, Resco Products, Inc. makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof.