



Nuline 39-89

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 7/3/2023 Revision date: 7/3/2023 Supersedes: 1/12/2021

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Nuline 39-89
CAS-No. : Mixture
Product code : 1867 = Mix51-87 + TI
Other means of identification : Resin Bonded 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 - 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

| | | |
|---|------|----------------------------------|
| Skin corrosion/irritation Category 2 | H315 | Causes skin irritation |
| Serious eye damage/eye irritation Category 2B | H320 | Causes eye irritation |
| Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation | H335 | May cause respiratory irritation |

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H315 - Causes skin irritation
H320 - Causes eye irritation
H335 - May cause respiratory irritation
Precautionary statements (GHS US) : P280 - Wear protective gloves/protective clothing/eye protection/face protection.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This product contains minor amounts of materials derived from petroleum and/or coal (such as petroleum pitch and/or coal tar pitch). These materials, in turn, contain compounds, which are carcinogenic. Petroleum pitch contains poly-nuclear aromatic compounds, some of which have been identified as carcinogenic. Based on this, NIOSH has identified petroleum pitch as a carcinogenic material. IARC has reported that there is sufficient evidence for the carcinogenicity of "untreated and mildly refined mineral oils" in humans, but no adequate data is available to evaluate the carcinogenicity of "highly refined mineral oils". Coal tars are by products of the destructive distillation of coal to produce coke and/or gas, and are believed to contain from 400-10,000 separate compounds. One important class of compounds present in coal tars is the so-called polycyclic aromatic hydrocarbons (PAHs). While not all PAHs have been determined to be human carcinogens, many have. The NTP Seventh Annual Report on Carcinogens (1994) listed 15 PAH compounds which "may reasonably be anticipated to be carcinogens".

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

Nuline 39-89

Safety Data Sheet

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

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 | 10 – 20 | Not classified |
| Phenolic Resin | CAS-No.: 108-95-2 | 1 – 5 | Not classified |
| Petroleum Pitch | CAS-No.: 8052-42-4 | 1 – 5 | Not classified |

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

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. |
| First-aid measures after inhalation | : Dust when sawing or tear out. Remove the victim into fresh air. |
| 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 with water. Do not induce vomiting. |

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

Most Important Symptoms/Effects : No additional information available.

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 | : No unsuitable extinguishing media known. |

5.2. Specific hazards arising from the chemical

Fire hazard : Non-flammable. Do not breathe fumes from fires or vapors from decomposition. 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.

5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|--|
| Firefighting instructions | : Exercise caution when fighting any chemical fire. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. |
| Other information | : 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. The phenolic resin binder may undergo incomplete combustion when temperature is applied to this product. The intent of this note is as follows: (1) to apprise the customer/user of the potential for incomplete combustion, and (2) to advise that the chemical compounds produced by incomplete combustion by poor air handling practices may exceed TLV's for specific air contaminants. The specific chemical compounds which may be produced include but are not limited to: carbon monoxide, formaldehyde, phenol, alcohols, glycols, and other solvents. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|--|
| Protective equipment | : Safety glasses. Protective gloves. Safety shoes. |
| Emergency procedures | : Avoid contact with skin and eyes. |

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : Collect spillage. On land, sweep or shovel into suitable containers. |

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 | : Mechanically recover the product. |

6.4. Reference to other sections

No additional information available

Nuline 39-89

Safety Data Sheet

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes.
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.
Incompatible materials : Oxidizing agents and strong acids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Nuline 39-89 (Mixture)

No additional information available

Magnesium Oxide (1309-48-4)

USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA 10 mg/m³ inhalable dust

USA - OSHA - Occupational Exposure Limits

OSHA PEL (TWA) [1] 10 mg/m³ respirable dust

graphite (7782-42-5)

USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA 2 mg/m³ (Respirable fraction)

Phenolic Resin (108-95-2)

No additional information available

Petroleum Pitch (8052-42-4)

USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA 0.5 mg/m³ (Inhalable fraction)

8.2. Appropriate engineering controls

Appropriate engineering controls : Dust when sawing or tear out. Provide adequate ventilation to minimize dust concentrations.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Safety shoes. Wear suitable protective clothing

Respiratory protection:

Dust when sawing or tear out. Wear appropriate mask

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Solid in various shapes.
Color : Black
Odor : Resin Odor
Odor threshold : No data available

Nuline 39-89

Safety Data Sheet

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

| | |
|---|-----------------------|
| 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 (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Not flammable. |
| Vapor pressure | : No data available |
| Relative vapor 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 |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

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

Strong acids.

10.6. Hazardous decomposition products

The phenolic resin binder may undergo incomplete combustion when temperature is applied to this product. The intent of this note is as follows: (1) to apprise the customer/user of the potential for incomplete combustion, and (2) to advise that the chemical compounds produced by incomplete combustion by poor air handling practices may exceed TLV's for specific air contaminants. The specific chemical compounds which may be produced include but are not limited to: carbon monoxide, formaldehyde, phenol, alcohols, glycols, and other solvents.

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 body weight (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 ³ air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust)) |

Petroleum Pitch (8052-42-4)

| | |
|--------------------|--|
| LD50 oral rat | > 5000 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rabbit | > 2000 mg/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s)) |

Nuline 39-89

Safety Data Sheet

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

| Petroleum Pitch (8052-42-4) | |
|--|---|
| LC50 Inhalation - Rat | > 0.094 mg/l (OECD 403: Acute Inhalation Toxicity, 4.5 h, Rat, Male / female, Experimental value, No effect, Inhalation (mixture of vapour and aerosol), 14 day(s)) |
| Skin corrosion/irritation | : Causes skin irritation. |
| Magnesium Oxide (1309-48-4) | |
| pH | 11 (10 %) |
| graphite (7782-42-5) | |
| pH | 7 (1.3 %) |
| Serious eye damage/irritation | : Causes eye irritation. |
| Magnesium Oxide (1309-48-4) | |
| pH | 11 (10 %) |
| graphite (7782-42-5) | |
| pH | 7 (1.3 %) |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Phenolic Resin (108-95-2) | |
| IARC group | 3 - Not classifiable |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : May cause respiratory irritation. |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Viscosity, kinematic | : No data available |
| Magnesium Oxide (1309-48-4) | |
| Viscosity, kinematic | Not applicable (solid) |
| Most Important Symptoms/Effects | : No additional information available. |
| SECTION 12: Ecological information | |
| 12.1. Toxicity | |
| graphite (7782-42-5) | |
| 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) |
| 12.2. Persistence and degradability | |
| Magnesium Oxide (1309-48-4) | |
| Persistence and degradability | Not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| graphite (7782-42-5) | |
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable |

Nuline 39-89

Safety Data Sheet

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

| | |
|--|---|
| graphite (7782-42-5) | |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |
| Petroleum Pitch (8052-42-4) | |
| Persistence and degradability | Not readily biodegradable in water. |
| 12.3. Bioaccumulative potential | |
| Magnesium Oxide (1309-48-4) | |
| Bioaccumulative potential | No bioaccumulation data available. |
| graphite (7782-42-5) | |
| Bioaccumulative potential | Not bioaccumulative. |
| Petroleum Pitch (8052-42-4) | |
| Bioaccumulative potential | No bioaccumulation data available. |
| 12.4. Mobility in soil | |
| Magnesium Oxide (1309-48-4) | |
| Surface tension | No data available in the literature |
| Ecology - soil | No data available. |
| Petroleum Pitch (8052-42-4) | |
| Ecology - soil | No (test) data on mobility of the substance available. |
| 12.5. Other adverse effects | |
| No additional information available | |
| SECTION 13: Disposal considerations | |
| 13.1. Disposal methods | |
| Product/Packaging disposal recommendations | : Dispose in a safe manner in accordance with local/national regulations. |
| SECTION 14: Transport information | |
| In accordance with DOT / TDG / IMDG / IATA Department of Transportation (DOT) In accordance with DOT Not regulated Transportation of Dangerous Goods Not regulated Transport by sea Not regulated Air transport Not regulated | |
| SECTION 15: Regulatory information | |
| 15.1. US Federal regulations | |
| Nuline 39-89 (Mixture) | |
| 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 | |
| Phenolic Resin (108-95-2) | |
| Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS) | |
| CERCLA RQ | 1000 lb |

Nuline 39-89

Safety Data Sheet

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

| Phenolic Resin (108-95-2) | |
|--|--|
| 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 |

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) | |

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

| 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 |
| Petroleum Pitch (8052-42-4) | U.S. - New Jersey - Right to Know Hazardous Substance List |

SECTION 16: Other information

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

Revision date

: 7/3/2023

Other information

: Report language name. English. In the event of any conflict between English and other language versions, the English version shall prevail.

| Full text of H-phrases | |
|-------------------------------|----------------------------------|
| H315 | Causes skin irritation |
| H320 | Causes eye irritation |
| H335 | May cause respiratory irritation |

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.