

POLYONE CORPORATION**MATERIAL SAFETY DATA SHEET****GRV-NY-037-W-SS-BLK**Version Number 1.0
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Print Date 11/18/2011**1. PRODUCT AND COMPANY IDENTIFICATION****POLYONE CORPORATION**
33587 Walker Road, Avon Lake, OH 44012

Telephone : Product Stewardship (440) 930-1395
Emergency telephone number : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**

Product name : GRV-NY-037-W-SS-BLK
Product code : EM10008668
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Molybdenum	7439-98-7	1 - 5
Tungsten	7440-33-7	1 - 5
Nickel	7440-02-0	5 - 10
Chromium	7440-47-3	10 - 30

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

POTENTIAL HEALTH EFFECTS**Routes of Exposure:** : Inhalation, Ingestion, Skin contact**Acute exposure**

Inhalation : Particulates, like other inert materials can be mechanically irritating.
Ingestion : May be harmful if swallowed.
Eyes : Particulates, like other inert materials can be mechanically irritating.
Skin : Experience shows no unusual dermatitis hazard from routine handling.

Chronic exposure : Refer to Section 11 for Toxicological Information.

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Aggravated by Exposure:**4. FIRST AID MEASURES**

Inhalation : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.

Ingestion : Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.

Eyes : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.

Skin : Wash off with soap and plenty of water. If skin irritation persists seek medical attention.

5. FIRE-FIGHTING MEASURES

Flash point : Not applicable

Flammable Limits
Upper explosion limit : Not applicable
Lower explosion limit : Not applicable
Autoignition temperature : Not applicable
Suitable extinguishing media : Carbon dioxide blanket, water spray, dry powder, foamnone.

Special Fire Fighting Procedures : Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.

Unusual Fire/Explosion Hazards : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.

Environmental precautions : Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.

Methods for cleaning up : Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal. Refer to Section 13 of this MSDS for proper disposal methods.

7. HANDLING AND STORAGE

Handling : Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation.

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Storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection : No personal respiratory protective equipment normally required.

Eye/Face Protection : Safety glasses with side-shields.

Hand protection : Protective gloves.

Skin and body protection : Long sleeved clothing.

Additional Protective Measures : Safety shoes.

General Hygiene Considerations : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Engineering measures : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.

Exposure limit(s)

Components	Value	Exposure time	Exposure type	List:
Chromium	0.5 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
	1 mg/m3	PEL:	as Cr	OSHA Z1
Molybdenum	15 mg/m3	PEL:	Total dust. as Mo	OSHA Z1
	3 mg/m3	Time Weighted Average (TWA):	Respirable fraction. as Mo	ACGIH
	10 mg/m3	Time Weighted Average (TWA):	Inhalable fraction. as Mo	ACGIH
Nickel	1 mg/m3	PEL:	as Ni	OSHA Z1
	1.5 mg/m3	Time Weighted Average (TWA):	Inhalable fraction. as Ni	ACGIH
Tungsten	5 mg/m3	Time Weighted Average (TWA):	as W	ACGIH
	10 mg/m3	Short Term Exposure Limit (STEL):	as W	ACGIH

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: Solid	Evaporation rate	: Not applicable
Appearance	: Pellets, Slabs	Specific Gravity:	: Not determined
Color	: BLACK	Bulk density	: Not established
Odor	: Very faint	Vapor pressure	: Not applicable
Melting point/range	: Not determined	Vapour density	: Not applicable

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Boiling Point: : Not applicable pH : Not applicable
Water solubility : Insoluble

10. STABILITY AND REACTIVITY

Stability : Stable.
Hazardous Polymerization : Will not occur.
Conditions to avoid : To avoid thermal decomposition, do not overheat.
Incompatible Materials : Strong acids, oxidizing and reducing agents
Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
7439-98-7	Molybdenum	Systemic effects	Eyes, Respiratory system, Liver, Kidney.
7440-33-7	Tungsten	Systemic effects	Eyes, Skin, Respiratory system, blood and blood forming system.
7440-02-0	Nickel	Systemic effects	Skin, Respiratory system.
7440-47-3	Chromium	Systemic effects	Eyes, Skin, Respiratory system.

Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
7440-02-0	Nickel	no	2B	no

IARC Carcinogen Classifications:

- 1 - The component is carcinogenic to humans.
- 2A - The component is probably carcinogenic to humans.
- 2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

- 1 - The component is known to be a human carcinogen.
- 2 - The component is reasonably anticipated to be a human carcinogen.

Additional Health Hazard Information:

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Tungsten 7440-33-7 Prolonged or repeated breathing of this material may result in chronic bronchitis. Exposure to freshly formed fumes from heated metal may cause "metal fume fever".

Additional Health Hazard Information:

Nickel 7440-02-0 Skin sensitizer "nickel itch", with pulmonary, brain, liver, kidney and muscle effects.

Additional Health Hazard Information:

Chromium 7440-47-3 The bi and trivalent forms of chrome have a low order of acute toxicity but may cause skin sensitization and irritation to the eyes. No effects have been reported for chromium (III) oxide. Chromium (III) compounds are not considered carcinogenic in animals or humans.

12. ECOLOGICAL INFORMATION

- Persistence and degradability : Not readily biodegradable.
- Environmental Toxicity : Chemicals are not readily available as they are bound within the polymer matrix.
- Bioaccumulation Potential : Chemicals are not readily available as they are bound within the polymer matrix.
- Additional advice : Not applicable

13. DISPOSAL CONSIDERATIONS

- Product : Like most thermoplastic plastics the product can be recycled. Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
- Contaminated packaging : Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

14. TRANSPORT INFORMATION

- U.S. DOT Classification : Not regulated for transportation.
- ICAO/IATA (air) : Refer to specific regulation.
- IMO / IMDG (maritime) : Refer to specific regulation.

15. REGULATORY INFORMATION

US Regulations:

- OSHA Status : Classified as hazardous based on components.

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TSCA Status : All components of this product are listed on or exempt from the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	RQ for component	RQ for Mixture/Product
Nickel	7440-02-0	100 lbs	1,060 LB

California Proposition 65 : WARNING! This product contains a chemical known to the State of California to cause cancer.

SARA Title III Section 302 Extremely Hazardous Substance
Not applicable

SARA Title III Section 313 Toxic Chemicals:

Chemical Name	CAS-No.	Weight %
CHROMIUM	7440-47-3	10.00 - 30.00
NICKEL	7440-02-0	5.00 - 10.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
Chromium	7440-47-3	10.00 - 30.00	69
Nickel	7440-02-0	5.00 - 10.00	168

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
7440-47-3
7439-98-7
7440-02-0
7440-33-7

DSL : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

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Australia AICS	:	Listed
China IECS	:	Listed
Europe EINECS	:	Listed
Japan ENCS	:	Not determined
Korea KECI	:	Listed
Philippines PICCS	:	Listed

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material when used in combination with any other materials and/or in any particular process or processing conditions.