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SAFETY DATA SHEET

X GV 126050#SR-06185 Gray

Section 1. Identification	n	
GHS product identifier Chemical name CAS number Other means of identification Product type	: : : : : : : : : : : : : : : : : : : :	X GV 126050#SR-06185 Gray Mixture Mixture EM10032572 solid
Relevant identified uses of the subs	tance	or mixture and uses advised against
Product use Supplier's details	:	Industrial applications. Plastics. POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012
Emergency telephone number (with hours of operation)	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).

Section 2. Hazards identification

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. After handling, always wash hands thoroughly with soap and water.

OSHA/HCS status	:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	:	Not classified.
Hazard statements	:	No known significant effects or critical hazards.

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Precautionary statements

General	:	Not applicable.
Prevention	:	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
Supplemental label elements	:	None known.
Hazards not otherwise classified	:	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	EM10032572

CAS number/other identifiers

Ingredient name	%	CAS number
Tungsten	30 - 60	7440-33-7
-		
Iron	30 - 60	7439-89-6
Titanium dioxide	0.1 - 1	13463-67-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures



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Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects		
Eye contact Inhalation	 No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. 	
Skin contact	: No known significant effects or critical hazards.	
Ingestion	: No known significant effects or critical hazards.	
Over-exposure signs/symptoms		
Eye contact	: No specific data.	
Inhalation	: No specific data.	
Skin contact	: No specific data.	
Ingestion	: No specific data.	
Indication of immediate medical attention and special treatment needed, if necessary		
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.	
Specific treatments	: No specific treatment.	
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.	
See toxicological information (Sect	tion 11)	

See toxicological information (Section 11)



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Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO_2 . None known.
Specific hazards arising from the chemical	:	No specific fire or explosion hazard.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides
Special protective actions for fire- fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel For emergency responders	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for containme	ent a	nd cleaning up

Small spill	:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a
		licensed waste disposal contractor.

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Large spill

Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures Advice on general occupational hygiene	:	Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

:

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Tungsten	NIOSH REL (1994-06-01) Calculated as W
	Time Weighted Average (TWA) 5 mg/m3
	Short Term Exposure Limit 10 mg/m3
	ACGIH TLV (1994-09-01) Calculated as W
	TLV-TWA: Threshold Limit Value - Time weighted average PEL:
	Permissible Exposure Level 5 mg/m3
	TLV-STEL: Threshold Limit Value - Short Time Exposure Level
	10 mg/m3
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Titanium dioxide		OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 10 mg/m3 Form: Total dust OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 15 mg/m3 Form: Total dust NIOSH REL (1994-06-01) ACGIH TLV (1996-05-18) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 10 mg/m3
Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker
Environmental exposure controls	:	exposure to airborne contaminants. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measures		
Hygiene measures Eye/face protection	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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Respiratory protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

:

Appearance

Physical state	:	solid [Pellets.]
Color	:	GREY
Odor	:	Faint odor.
Odor threshold	:	Not available.
рН	:	Not available.
Melting point	:	Not available.
Boiling point	:	Not available.
Flash point	:	Not available.
Burning time	:	Not available.
Burning rate	:	Not available.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive	:	Lower: Not available.
(flammable) limits		Upper: Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	Not available.
Solubility	:	Not available.
Solubility in water	:	insoluble in water.
Partition coefficient: n- octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
SADT	:	Not available.
Viscosity	:	Dynamic: Not available.
-		Kinematic: Not available.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Stable under recommended storage and handling conditions (see Section 7).
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Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will
		not occur.
Conditions to avoid	:	Keep away from extreme heat and oxidizing agents.
Incompatible materials	:	Keep away from strong acids.
		Oxidizer.
Hazardous decomposition	:	Under normal conditions of storage and use, hazardous decomposition
products		products should not be produced.Under normal conditions of storage
		and use, hazardous decomposition products should not be produced.

Section 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.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Iron				
	LD50 Oral	Rat	750 mg/kg	-
	LD50 Oral	Rat	30,000 mg/kg	-
Titanium dioxide		·		

Conclusion/Summary

: Mixture.Not fully tested.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Tungsten	Eyes - Mild irritant	Rabbit		24 hrs	-
	Skin - Mild	Rabbit		24 hrs	-
	irritant				
Conclusion/Summary					
Skin	: N	lixture.Not ful	ly tested.		
Eyes	: Mixture.Not fully tested.				
Respiratory	• N	lixture.Not ful	ly tested		

Sensitization

Conclusion/Summary		
Skin	:	Mixture.Not fully tested.
Respiratory	:	Mixture.Not fully tested.

Mutagenicity

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Conclusion/Summary	:	Mixture.No	t fully tested.		
Carcinogenicity					
Conclusion/Summary	:	Mixture.No	t fully tested.		
<u>Classification</u>					
Product/ingredient name	OSHA		IARC	NTP	٦
Tungsten					_
Iron					
Titanium dioxide			2B		
<u>Reproductive toxicity</u>					
Conclusion/Summary	:	Mixture.No	t fully tested.		
Teratogenicity					
Conclusion/Summary	:	Mixture.No	t fully tested.		
Specific target organ toxicity Not available.	/ (single exp	oosure)			
Specific target organ toxicity Not available.	/ (repeated	<u>exposure)</u>			
Aspiration hazard Not available.					
Information on the likely rou	ites of 🛛 :	Not availab	le.		
exposure					
exposure <u>Potential acute health effects</u>		No known s		critical hazards	
exposure Potential acute health effects Eye contact	:		significant effects or		
exposure <u>Potential acute health effects</u>		Exposure to	significant effects or decomposition proc	ucts may cause a health hazard.	
exposure <u>Potential acute health effects</u> Eye contact Inhalation	:	Exposure to Serious effe	significant effects or decomposition proceeds may be delayed	ucts may cause a health hazard. following exposure.	
exposure Potential acute health effects Eye contact	:	Exposure to Serious effe No known s	significant effects or decomposition proc	ucts may cause a health hazard. following exposure. critical hazards.	
exposure Potential acute health effects Eye contact Inhalation Skin contact	:	Exposure to Serious effe No known s No known s	significant effects or decomposition proc ects may be delayed significant effects or significant effects or	ucts may cause a health hazard. ollowing exposure. critical hazards. critical hazards.	
exposure Potential acute health effects Eye contact Inhalation Skin contact Ingestion Symptoms related to the phy	: : sical, chemi	Exposure to Serious effe No known s No known s ical and toxic	significant effects or o decomposition proc ects may be delayed significant effects or significant effects or ological characteris	ucts may cause a health hazard. ollowing exposure. critical hazards. critical hazards.	
exposure <u>Potential acute health effects</u> Eye contact Inhalation Skin contact Ingestion	:	Exposure to Serious effe No known s No known s	significant effects or o decomposition proc ects may be delayed significant effects or significant effects or ological characteris data.	ucts may cause a health hazard. ollowing exposure. critical hazards. critical hazards.	

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Ingestion	:	No specific data.
Delayed and immediate effects and	l also c	hronic effects from short and long term exposure
Short term exposure		
Potential immediate effects Potential delayed effects	:	Not available. Not available.
Long term exposure		
Potential immediate effects Potential delayed effects	:	Not available. Not available.
Potential chronic health effects		
Conclusion/Summary	:	Mixture.Not fully tested.
General Carcinogenicity Mutagenicity Teratogenicity Developmental effects Fertility effects	: : : : : : : : : : : : : : : : : : : :	No known significant effects or critical hazards. No known significant effects or critical hazards.
<u>Numerical measures of toxicity</u> <u>Acute toxicity estimates</u>		

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Iron			
	Acute LC50 0.56 mg/l Fresh water	Fish - common carp	96 h
	Acute LC50 6.48 µg/l Marine	Fish - Mudskipper	96 h
	water		
	Acute LC50 1.22 mg/l Fresh water	Fish - common carp	96 h
	Acute LC50 2.25 mg/l Fresh water	Fish - common carp	96 h



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	Acute LC50 1.36 mg/l Fresh water	Fish - common carp	96 h
X GV 126050#SR-06185 Gray	1		
Remarks - Acute - Aquatic	Chemicals are not readily available	as they are bound within the	ne polymer matrix.
invertebrates.:			
Conclusion/Summary	: Chemicals are not read polymer matrix.	dily available as they are bo	und within the
Persistence and degradability	<u>v</u>		
Conclusion/Summary	: Chemicals are not read polymer matrix.	dily available as they are bo	und within the
Conclusion/Summary	: Chemicals are not read polymer matrix.	dily available as they are bo	und within the

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Titanium dioxide		352.00	high

|--|

Soil/water partition coefficient	:	Not available.
(KOC)		
Other adverse effects	:	No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Acute hazardous waste "P" List: Not listed

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United States - RCRA Toxic hazardous waste "U" List: Not listed

Section 14. Transport information

U.S. DOT Classification	:	Not regulated for transportation.
ICAO/IATA	:	Consult mode specific transport rules
IMO/IMDG (maritime)	:	Consult mode specific transport rules
Special precautions for user	:	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.'

Section 15. Regulatory information

U.S. Federal regulations	:	United States - TSCA 12(b) - Chemical export notification: None of the components are listed.
		United States - TSCA 4(a) - Final Test Rules: Not listed
		United States - TSCA 4(a) - ITC Priority list: Not listed
		United States - TSCA 4(a) - Proposed test rules: Not listed
		United States - TSCA 4(f) - Priority risk review: Not listed
		United States - TSCA -(1) - Final significant new use rules: Not
		listed
		United States - TSCA 5(a)2 - Proposed significant new use rules:
		Not listed
		United States - TSCA 5(e) - Substances consent order: Not listed
		United States - TSCA 6 - Final risk management: Not listed
		United States - TSCA 6 - Proposed risk management: Not listed
		United States - TSCA 8(a) - Chemical risk rules: Not listed
		United States - TSCA 8(a) - Dioxin/Furane precusor: Not listed
		United States - TSCA 8(a) - Chemical Data Reporting (CDR): Not
		determined
		United States - TSCA 8(a) - Preliminary assessment report
		(PAIR): Listed Tungsten
		United States - TSCA 8(c) - Significant adverse reaction (SAR):
		Not listed
		United States - TSCA 8(d) - Health and safety studies: Not listed
		United States - EPA Clean water act (CWA) section 307 - Priority
		pollutants: Listed Chromium
		Zinc stearate
		Phthalocyanine blue
		4045

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United States - EPA Clean water act (CWA) section 311 -Hazardous substances: Not listed United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances: Not listed United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances: Not listed United States - Department of commerce - Precursor chemical: Not listed

Clean Air Act Section 112(b)	:	Listed
Hazardous Air Pollutants (HAPs) Clean Air Act Section 602 Class I	:	Not listed
Substances Clean Air Act Section 602 Class II	:	Not listed
Substances DEA List I Chemicals (Precursor		Not listed
Chemicals)		
DEA List II Chemicals (Essential Chemicals)	:	Not listed

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

Classification

Not applicable.

:

Composition/information on ingredients

Name	%	Classification
Tungsten	30 - 60	F, AH
Iron	30 - 60	AH
Titanium dioxide	0.1 - 1	СН

SARA 313

	Product name	CAS number	%
Form R - Reporting	Chromium	7440-47-3	5 - 7
requirements			
Supplier notification	Chromium	7440-47-3	5 - 7

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall

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include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

<u>State regulations</u> Massachusetts	:	The following components are listed: Tungsten
New York	:	Chromium The following components are listed: Chromium
New Jersey	:	The following components are listed: Tungsten Chromium
Pennsylvania	:	Titanium dioxide The following components are listed: Tungsten
		Chromium
		Titanium dioxide
California Prop. 65 WARNING: This product contains a chemical known to the State of California to cause cancer.		
United States inventory (TSCA 8b)	:	All components are listed or exempted.
Canada inventory	:	At least one component is not listed in DSL but all such components are listed in NDSL.
International regulations		
International lists	:	 Australia inventory (AICS): Not determined. Taiwan inventory (CSNN): Not determined. Malaysia Inventory (EHS Register): Not determined. EINECS: All components are listed or exempted. Japan inventory: Not determined. China inventory (IECSC): All components are listed or exempted. Korea inventory: Not determined. New Zealand Inventory of Chemicals (NZIoC): Not determined. Philippines inventory (PICCS): Not determined.
Chemical Weapons Convention	:	Not listed
List Schedule I Chemicals Chemical Weapons Convention List Schedule II Chemicals	:	Not listed

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Chemical Weapons Convention : Not listed **List Schedule III Chemicals**

Section 16. Other information

<u>History</u>		
Date of printing	:	05/22/2014
Date of issue/Date of revision	:	05/21/2014
Date of previous issue	:	00/00/0000
Version	:	1.0
Key to abbreviations	:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
References	:	UN = United Nations Not available.

Notice to reader

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