### MATERIAL SAFETY DATA SHEET X GT-4394-1A

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1. PRODUCT AND COMPANY IDENTIFICATION         POLYONE CORPORATION         33587 Walker Road, Avon Lake, OH 44012				
Telephone Emergency telephone number	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).		
Product name	:	X GT-4394-1A		
Product code	:	EM10030992		
Chemical Name	:	Mixture		
CAS-No.	:	Mixture		
CAS-NO.				

### Components CAS-No. Weight percent

Components	CAS-No.	Weight percent
Tungsten	7440-33-7	60 - 100

#### **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

<b>Routes of Exposure:</b>	: Inhalation, Ingestion, Skin contact
Acute exposure	
Inhalation Ingestion Eyes Skin	<ul> <li>Particulates, like other inert materials can be mechanically irritating.</li> <li>May be harmful if swallowed.</li> <li>Particulates, like other inert materials can be mechanically irritating.</li> <li>Experience shows no unusual dermatitis hazard from routine handling.</li> </ul>
Chronic exposure	: Refer to Section 11 for Toxicological Information.
Medical Conditions Aggravated by Exposure:	: None known.



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	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 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 a 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. FIREFIGHTING MEASURES
Flash point	: not applicable
Flammable Limits Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media	<ul> <li>not applicable</li> <li>not applicable</li> <li>not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> </ul>
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 (NOx), other hazardous materials, and smoke are all possible.
	5. 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.
	7. HANDLING AND STORAGE
Handling	: Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation.
Storage	: Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.

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8.1	EXPOSURE	CONTROLS/PERS	ONAL I	PROTECTION	
Respiratory protection	: N	lo personal respiratory	protecti	ve equipment norma	lly required.
Eye/Face Protection	: S	afety glasses with side	-shields		
Hand protection	: P	rotective gloves			
Skin and body protection	: L	ong 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		leat only in areas with a ppropriate exhaust ven			on. Provide
Exposure limit(s)					
Components	Value	Exposure time		Exposure type	List:
Tungsten	5 mg/m3	Time Weighted Average (TWA):		as W	ACGIH
	10 mg/m3	Short Term Exposure Limit (STEL):		as W	ACGIH
	5 mg/m3	Time Weighted Ave (TWA):	erage	as W	MX OEL
	10 mg/m3 Short Term Exp (STE		e Limit	as W	MX OEL
	9. PHYSI	CAL AND CHEMICA	AL PRO	PERTIES	
Form	: solid		Evano	uration rate :	Not applicable
Appearance		ets, Slabs			Not determined
Colour		PIGMENT			Not established
Odour	: very				not applicable
Melting point/range		determined	-		not applicable
Boiling Point: Water solubility	: not a : insol	pplicable	pН	: 1	not applicable
water solubility	. 111501	ubic			
	10. 8	STABILITY AND RE	ACTIV	ITY	
Stability	: T	The product is stable if s	stored a	nd handled as prescri	ibed.
Hazardous Polymerization	1 : W	Vill not occur.			
Conditions to avoid	: T	o avoid thermal decom	positio	n, do not overheat.	

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Incompatible Material	ls	: Strong acids, c	oxidizing and reducin	ng agents
Hazardous decomposi products	ition			oxide (CO), oxides of nitrogen ad smoke are all possible.
	1	1. TOXICOLOGI	CAL INFORMATIO	DN
This mixture has not b health data for the ind				are effects listed are based on ex
Toxicity Overview This product contains	the follow	ving components whi	ich in their pure form	have the following characteristi
CAS-No.	C	nemical Name	Effect	Target Organ
7440-33-7	Tungste		Systemic effects	Eyes, Skin, Respiratory system, blood and blood forming system.
		12. ECOLOGICA	AL INFORMATION	I
				т
Persistence and degrad	dability	12. ECOLOGICA         : Not readily bio		I
Persistence and degrad	·	: Not readily bio	degradable. not readily available a	as they are bound within the
-	ity	<ul> <li>Not readily bio</li> <li>Chemicals are polymer matrix</li> </ul>	degradable. not readily available a x. not readily available a	
Environmental Toxici	ity	<ul> <li>Not readily bio</li> <li>Chemicals are polymer matrix</li> <li>Chemicals are polymer matrix</li> </ul>	degradable. not readily available a x. not readily available a	as they are bound within the
Environmental Toxici Bioaccumulation Pote	ity	<ul> <li>Not readily bio</li> <li>Chemicals are polymer matrix</li> <li>Chemicals are polymer matrix</li> <li>not applicable</li> </ul>	degradable. not readily available a x. not readily available a	as they are bound within the as they are bound within the
Environmental Toxici Bioaccumulation Pote	ity	<ul> <li>Not readily bio</li> <li>Chemicals are polymer matrix</li> <li>Chemicals are polymer matrix</li> <li>Chemicals are polymer matrix</li> <li>not applicable</li> <li>13. DISPOSAL C</li> <li>Like most therr possible recycling enerator of wa classification, t</li> </ul>	degradable. not readily available a c. not readily available a c. <b>CONSIDERATIONS</b> moplastic plastics the ing is preferred to dispaste material has the r	as they are bound within the as they are bound within the product can be recycled. When posal or incineration. The esponsibility for proper waste posal in accordance with
Environmental Toxici Bioaccumulation Pote Additional advice	ity ential	<ul> <li>Not readily bio</li> <li>Chemicals are a polymer matrix</li> <li>Chemicals are a polymer matrix</li> <li>Chemicals are a polymer matrix</li> <li>not applicable</li> <li>13. DISPOSAL C</li> <li>Like most therr possible recycling generator of was classification, t applicable fede</li> <li>Recycling is pr material has the transportation a</li> </ul>	degradable. not readily available a c. not readily available a c. <b>CONSIDERATIONS</b> moplastic plastics the ing is preferred to dispaste material has the r ransportation and disp ral, state/provincial ar eferred when possible e responsibility for pr	as they are bound within the as they are bound within the product can be recycled. Where posal or incineration. The esponsibility for proper waste posal in accordance with nd local regulations. e. The generator of waste oper waste classification, lance with applicable federal,

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U.S. DOT Classification	:	Not regulated for transportation.
ICAO/IATA	:	Refer to specific regulation.
IMO/IMDG (maritime)	:	Refer to specific regulation.
	15	5. REGULATORY INFORMATION
US Regulations:		
OSHA Status	:	Classified as hazardous based on components.
TSCA Status	:	All components of this product are listed on or exempt from the TSCA Inventory.
US. EPA CERCLA Hazardou	us Subs	stances (40 CFR 302)
not applicable		
California Propositior 65	1 :	Not applicable
SARA Title III Section 302 E	Extrem	ely Hazardous Substance
Unless specific chemicals are	identi	fied under this section, this product is Not Applicable under this regulation
SARA Title III Section 313 T	Coxic C	Chemicals:
Unless specific chemicals are	identi	fied under this section, this product is Not Applicable under this regulation
Canadian Regulations:		
National Pollutant Rel	ease Ir	aventory (NPRI)
not applicable		
WHMIS Classificatio	n :	Not controlled.
DSL	:	DSL status has not been determined. Quantity use in Canada may be restricted by regulations.
National Inventories:		

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		16. OTHER INFORMATION
Philippines PICCS	:	Not determined
Korea KECI	:	Not determined
Japan ENCS	:	Not determined
Europe EINECS	:	Listed
China IECS	:	Not determined

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 used in combination with any other materials or in any process, unless specified in the text.