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SAFETY DATA SHEET

NeuSoft UR842A, 70% Tungsten, heat/UV

Section 1. Identificati	on	
GHS product identifier Chemical name CAS number Other means of identification Product type	:	NeuSoft UR842A, 70% Tungsten, heat/UV Mixture Mixture EM10054290 solid
Relevant identified uses of the sub Product use	stance :	e or mixture and uses advised against Industrial applications.
Supplier's details	:	NEU Specialty Engineered Materials, LLC. 15 Corporate Drive, North Haven, CT 06473 1 (440) 930-1000 or 1 (844) 4AVIENT
Emergency telephone number (with hours of operation)	:	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 SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	:	Not classified.
GHS label elements		
Signal word Hazard statements	:	No signal word. No known significant effects or critical hazards.

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Precautionary statements

	:	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.
		Not available.

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	EM10054290

CAS number/other identifiers

Ingredient name	%	CAS number
Tungsten	>= 50 - <= 75	7440-33-7

.. . .

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

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.
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

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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	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
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 atter	<u>ntio</u> i	n and special treatment needed, if necessary
Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
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 (Section 11)

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: 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 should wear appropriate protective equipment and self-

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fire-fighters

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 specialized 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 Methods and materials for containme	: nt ai	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).
Withous and materials for containine	int ai	
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.
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.

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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		ACGIH TLV (2017-03-01) TWA 3 mg/m3 (as W) Form: Respirable NIOSH REL (1994-06-01) TWA 5 mg/m3 STEL 10 mg/m3
Appropriate engineering controls Environmental exposure controls	:	Good general ventilation should be sufficient to control worker 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
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	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.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that
	meets the appropriate standard or certification. Respirators must be
	used according to a respiratory protection program to ensure proper
	fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state	:	solid [Pellets.]
Color	:	BLACK
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-	:	Not available.
octanol/water		
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
SADT	:	Not available.
Viscosity	:	Dynamic: Not available.
-		Kinematic: Not available.

Aerosol product

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Heat of combustion	:	Not available.
Ignition distance	:	Not available.
Enclosed space ignition - Time	:	Not available.
equivalent		
Enclosed space ignition -	:	Not available.
Deflagration density		
Flame height	:	Not available.
Flame duration	:	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).
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 products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

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 irritant	Rabbit	-	24 hrs	-

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

Sensitization

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Conclusion/Summary Skin Respiratory	:	Mixture.Not fully tested. Mixture.Not fully tested.
<u>Mutagenicity</u>		
Conclusion/Summary	:	Mixture.Not fully tested.
Carcinogenicity		
Conclusion/Summary	:	Mixture.Not fully tested.
<u>Reproductive toxicity</u>		
Conclusion/Summary	:	Mixture.Not fully tested.
Teratogenicity		
Conclusion/Summary	:	Mixture.Not fully tested.
Specific target organ toxicity (single Not available.	e exp	<u>osure)</u>
Specific target organ toxicity (repean Not available.	ted e	xposure)
<u>Aspiration hazard</u> Not available.		
<u>Aspiration hazard</u> Not available. Information on the likely routes of exposure	:	Not available.
Not available. Information on the likely routes of	:	Not available.
Not available.Information on the likely routes of exposurePotential acute health effectsEye contact	:	No known significant effects or critical hazards.
Not available.Information on the likely routes of exposurePotential acute health effectsEye contact Inhalation		No known significant effects or critical hazards. No known significant effects or critical hazards.
Not available. Information on the likely routes of exposure Potential acute health effects Eye contact Inhalation Skin contact	::	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Not available.Information on the likely routes of exposurePotential acute health effectsEye contact Inhalation	:	No known significant effects or critical hazards. No known significant effects or critical hazards.
Not available. Information on the likely routes of exposure Potential acute health effects Eye contact Inhalation Skin contact	: : :	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Not available.Information on the likely routes of exposurePotential acute health effectsEye contact Inhalation Skin contact Ingestion	: : :	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Not available. Information on the likely routes of exposure Potential acute health effects Eye contact Inhalation Skin contact Ingestion Symptoms related to the physical, cl	: : : hemi	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Not available. Information on the likely routes of exposure Potential acute health effects Eye contact Inhalation Skin contact Ingestion Symptoms related to the physical, cl Eye contact	: : : hemi	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. cal and toxicological characteristics No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

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<u>Short term exposure</u>		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
Long term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
Potential chronic health effects		
Conclusion/Summary	:	Mixture.Not fully tested.
General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	No known significant effects or critical hazards.
Numerical measures of toxicity		
<u>Acute toxicity estimates</u> N/A		
Other 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.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure		
NeuSoft UR842A, 70% Tungsten, heat/UV					
Remarks - Acute - Aquatic	Chemicals are not rea	dily available as they are bound with	nin the polymer matrix.		
invertebrates.:					
Conclusion/Summary	: Chemicals polymer n	s are not readily available as they are natrix.	bound within the		
Persistence and degradability					
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Conclusion/Summary	:	Chemicals are not readily available as they are bound within the polymer matrix.
Conclusion/Summary	:	Chemicals are not readily available as they are bound within the polymer matrix.
<u>Bioaccumulative potential</u> Not available.		
Mobility in soil		
Soil/water partition coefficient (KOC)	:	Not available.
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

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

Section 14. Transport information

U.S.DOT 49CFR Ground/Air/Water	:	Not regulated for transportation.
International Air	:	Not classified as dangerous goods under transport regulations.

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ICAO/IATA

International Water	:	Not classified as dangerous goods under transport regulations.
IMO/IMDG		

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 5(a)2 - 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 Siloxanes and Silicones, di-Me, reaction products with silica
		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: Not listed 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) Hazardous Air Pollutants (HAPs)	:	Not listed
Clean Air Act Section 602 Class I	:	Not listed

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Substances:Not listedClean Air Act Section 602 Class II::Not listedSubstances::Not listedDEA List I Chemicals (Precursor::Not listedDEA List II Chemicals (Essential::Not listedChemicals):::Not listed

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

Classification

Not applicable.

:

Composition/information on ingredients

No products were found.

Name	%	Classification
Tungsten	>= 50 - <= 75	EYE IRRITATION - Category 2B

Not applicable.

State regulations				
Massachusetts	:	None of the components are listed.		
New York	:	None of the components are listed.		
New Jersey	:	The following components are listed:		
		Tungsten		
Pennsylvania	:	The following components are listed:		
		Tungsten		
<u>California Prop. 65</u>				
This product does not require a Safe Ha				
United States inventory (TSCA 8b)	:	All components are active or exempted.		
Canada inventory	:	At least one component is not listed in DSL but all such components are listed in NDSL.		
International regulations				
Inventory list				
Australia	:	Not determined.		
Canada	:	At least one component is not listed in DSL but all such components		
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China Europe inventory Japan New Zealand Philippines Republic of Korea	Not determined. Not determined. Not determined.
Taiwan Turkey United States	All components are listed or exempted. Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual. History

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efficien ion of F

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