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SAFETY DATA SHEET

X GT 33991-05A-01-3

Section 1. Identification		
GHS product identifier Chemical name CAS number Other means of identification Product type	::	X GT 33991-05A-01-3 Mixture EM10051333 solid
<u>Relevant identified uses of the subst</u> Product use	ance :	or mixture and uses advised against Industrial applications.
Supplier's details	:	AVIENT CORPORATION 33587 Walker Road, Avon Lake, OH 44012
		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	:	EM10051333

CAS number/other identifiers

Ingredient name	%	CAS number
Copper	>= 50 - <= 75	7440-50-8

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. 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.
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Skin contact Ingestion	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash out mouth with water. 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, ac	ute a	nd 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 att	entio	n 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.
for toricological information (fortic	an 11)

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 Hazardous thermal	:	Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Decomposition products may include the following materials:

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decomposition products		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 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	:	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). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and materials for containment	nt aı	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.
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

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Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Avoid release to the environment.
Advice on general occupational hygiene	:	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	
Ingredient name Copper	NIOSH REL (1994-06-01)TWA 1 mg/m3 (as Cu) Form: Dusts and mistsOSHA PEL (1993-06-30)TWA 0.1 mg/m3 Form: FumeTWA 1 mg/m3 Form: Dusts and mistsOSHA PEL 1989 (1989-03-01)TWA 0.1 mg/m3 (as Cu) Form: FumeTWA 1 mg/m3 (as Cu) Form: Dusts and mists	
	ACGIH TLV (1994-09-01) TWA 0.2 mg/m3 Form: Fume	

Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	:	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.

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Individual protection measures

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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.
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

	0/45	
Burning time	: Not available.	
Flash point	: Not applicable.	
Boiling point	: Not available.	
Melting point	: Not available.	
рН	: Not available.	
Odor threshold	: Not available.	
Odor	: Faint odor.	
Color	: NO PIGMENT	
Physical state	solid [Pellets.]	

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Burning rate Evaporation rate Flammability (solid, gas) Lower and upper explosive (flammable) limits	 Not available. Not available. Not available. Lower: Not applicable. Upper: Not applicable.
Vapor pressure Vapor density	Not available.Not applicable.
Relative density Solubility Solubility in water	Not available.Not available.insoluble in water.
Partition coefficient: n-	: Not applicable.
octanol/water Auto-ignition temperature	: Not applicable.
Decomposition temperature SADT Viscosity	 Not available. Not available. Dynamic: Not available. Kinematic: Not applicable.
Aerosol product	
Heat of combustion	: Not available.
Ignition distance Enclosed space ignition - Time equivalent Enclosed space ignition - Deflagration density Flame height	 Not available. Not available. Not available. 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 Incompatible materials	:	Keep away from extreme heat and oxidizing agents. Keep away from strong acids.



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		Oxidizer.
Hazardous decomposition	:	Under normal conditions of storage and use, hazardous decomposition
products		products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity		a •	D	T
Product/ingredient name	Result	Species	Dose	Exposure
Copper	1.050.01	Det	492	
	LD50 Oral	Rat	482 mg/kg	-
Conclusion/Summary	: Mix	ture.Not fully tested.		
Irritation/Corrosion				
Conclusion/Summary				
Skin		xture.Not fully tested.		
Eyes		xture.Not fully tested.		
Respiratory	: Mi	xture.Not fully tested.		
<u>Sensitization</u>				
Conclusion/Summary				
Skin		xture.Not fully tested.		
Respiratory	: Mi	xture.Not fully tested.		
Mutagenicity				
Conclusion/Summary	: Mi	xture.Not fully tested.		
<u>Carcinogenicity</u>				
Conclusion/Summary	: Mi	xture.Not fully tested.		
<u>Reproductive toxicity</u>				
Conclusion/Summary	: Mi	xture.Not fully tested.		
Teratogenicity				
Conclusion/Summary	: Mi	xture.Not fully tested.		
Specific target organ toxicity	y (single exposure	<u>e)</u>		

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Not available.

Specific target organ toxicity (repeated exposure) Not available.

Aspiration hazard

Not available.

Information on the likely routes of : Not available. **exposure**

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.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

Delayed and immediate effects and also chronic 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	:	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. No known significant

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effects or critical hazards.

Numerical measures of toxicity

 $\frac{\textbf{Acute toxicity estimates}}{N/A}$

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
Copper			
	Acute LC50 0.00756 Mg/l	Fish - Periophthalmus waltoni	96 h
	Marine water	-	
	Acute EC50 0.0021 Mg/l Fresh	Daphnia - Daphnia longispina	48 h
	water		
	Acute LC50 0.000072 Mg/l	Crustaceans - Amphipoda	48 h
	Marine water		
	Acute EC50 1.1 Mg/l Fresh	Aquatic plants - Lemna minor	96 h
	water		
	Acute IC50 0.016 Mg/l Fresh	Algae - Chlorella pyrenoidosa	72 h
	water		
	Acute IC50 5.4 Mg/l Marine	Aquatic plants - Plantae	72 h
	water		
	Chronic NOEC 0.0025 Mg/l	Algae - Nitzschia closterium	72 h
	Marine water	-	
	Chronic NOEC 7 Mg/l Fresh	Aquatic plants -	72 h
	water	Ceratophyllum demersum	
	Chronic NOEC 0.0008 Mg/l	Fish - Oreochromis niloticus	42 d
	Fresh water		
	Chronic NOEC 0.02 Mg/l Fresh	Crustaceans - Cambarus	21 d
	water	bartonii	
	Chronic NOEC 0.002 Mg/l Fresh	Daphnia - Daphnia magna	21 d
	water		
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Remarks - Acute - Aquation	c Chemicals are not readily available	e as they are bound within the poly	ymer matrix.
invertebrates.		· · ·	

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Conclusion/Summary	:	Chemicals are not readily available as they are bound within the polymer matrix.	
Persistence and degradability			
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.	
Bioaccumulative potential Not available.			
<u>Mobility in soil</u>			
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

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

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(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 8(a) - Chemical risk rules: Not listed United States - TSCA 8(a) - Chemical Data Reporting (CDR): Not determined United States - TSCA 8(a) - Preliminary assessment report
	(PAIR): Listed Dodecamethylcyclohexasiloxane Branched-nonylphenol, ethoxylate
	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 Copper
	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
	United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances: Not listed

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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		NT-4 11-4 - 4
DEA List I Chemicals (Precursor Chemicals)	:	Not listed
DEA List II Chemicals (Essential Chemicals)	:	Not listed

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	RQ for component
Copper	7440-50-8	5,000 lb(s) 2,270 kg

SARA 311/312

Classification

Not applicable.

:

Composition/information on ingredients

No products were found.

Name	%	Classification
Copper	>= 50 - <= 75	ACUTE TOXICITY - oral - Category 4

<u>SARA 313</u>

Form R - Reporting requirements

Product name	CAS number	%
Copper	7440-50-8	>= 45 - < 70

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

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Massachusetts New York	:	The following components are listed: Copper Glass, oxide The following components are listed:
		Copper
New Jersey	:	The following components are listed:
		Copper
Pennsylvania	:	The following components are listed:
		Copper
California Prop. 65		
This product does not require a Safe H	Iarboi	r warning under California Prop. 65.
United States inventory (TSCA 8b)		All components are active or exempted.
Canada inventory	:	All components are listed or exempted.
<u>International regulations</u> <u>Inventory list</u>		
Australia	:	Not determined.
Canada	:	All components are listed or exempted.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined.
		Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are active or exempted.
Viet Nam	:	Not determined.

Section 16. Other information

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

Health	/	0
Flammability		0
Physical hazards		0

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



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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

<u>IIIStol y</u>		
Date of printing	:	01/09/2025
Date of issue/Date of revision	:	12/18/2024
Date of previous issue	:	12/03/2020
Version	:	1.1
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 = Intermediate Bulk Container
		IMDG = International Maritime Dangerous Goods
		LogPow = logarithm of the octanol/water partition coefficient
		MARPOL = International Convention for the Prevention of Pollution From
		Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine
		pollution)
		UN = United Nations
References	:	Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Particularly this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.