


Section 1, Identification	
Trade Name & Identifier	TMX Thread Anti-Seize Lubricant, 290-ASEIZE-03
Use of substance / preparation	Lubricant for Screw Threads
NSF H-1 Registration number	Not available
Manufacturer / Supplier	TMX Cutting Tools
Street / POB	34 Talbot Road
Country code / Zip code / Town	Northborough, MA 01532
Technical Information Contact	support@toolmex.com
Phone / Email / Fax	+1-508-653-8897 / +1-508-653-5110 / 844-869-8665 (844-TMX-TOOL) support@toolmex.com
Emergency Information	+1-508-653-8897 / 844-869-8665 (844-TMX-TOOL)

Section 2, Hazards Identification	
OSHA / HCS Status	This material is considered hazardous by the OSHA Hazard Communication Standard. (29 CFR 1910.1200).
Classification of the substance or mixture	AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2
GHS label elements: Hazard pictograms	
Signal word	Warning
Hazard statements	Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.
PRECAUTIONARY STATEMENTS	
Prevention	Avoid release to the environment.
Response	Collect spillage.
Storage	Not applicable
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	None known.

Section 3, Composition/information on ingredients		
Substance / mixture	Mixture.	
Other means of identification	Not available	
CAS NUMBER / OTHER IDENTIFIERS		
CAS Number	Not applicable.	
Product code	290-ASEIZE-03	
Ingredient name	%	CAS number
Copper	1-5	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. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4, First Aid Measures	
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 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.
Indication of immediate medical attention and special treatment needed, if necessary	
Notes to physician	Treat symptomatically.
Specific treatments	No specific treatment.
Protection of First-aiders	No special protection is required.

See toxicological information (Section 11)

Section 5, Fire-fighting measures	
EXTINGUISHING MEDIA	
Suitable extinguishing media	Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds, metal oxide/oxides
Special protective actions for fire-fighters	No special measures are required.
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	Put on appropriate personal protective equipment.
For emergency responders	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. Collect spillage.
METHODS AND MATERIALS FOR CONTAINMENT AND 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. Approach release from upwind. 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	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
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. 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	
OCCUPATIONAL EXPOSURE LIMITS	
INGREDIENT NAME	EXPOSURE LIMITS
Copper	<p>ACGIH TLV (United States, 3/2012). TWA: 1 mg/m³, (as Cu) 8 hours. Form: Dust and mist TWA: 0.2 mg/m³ 8 hours. Form: Fume</p> <p>OSHA PEL (United States, 6/2010). TWA: 1 mg/m³ 8 hours. Form: Dusts and Mists TWA: 0.1 mg/m³ 8 hours. Form: Fume</p> <p>NIOSH REL (United States, 1/2013). TWA: 1 mg/m³, (as Cu) 10 hours. Form: Dusts and Mists</p>
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.
INDIVIDUAL PROTECTION MEASURES	
Hygiene measures	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. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	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.
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	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	Semi-solid
Color	Copper [Dark]
Odor	Petroleum.
Odor threshold	Not available.
SAFETY RELEVANT DATA	
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Open cup: 232.22°C (450°F) [Cleveland.]
Burning time	Not available.
Burning rate	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.04 g/ml
Solubility	Insoluble in water.
Partition coefficient: n- octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
SADT	Not available.
Viscosity	Not available.

Section 9, Physical and chemical properties	
Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	Do not heat above flash point.
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.
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	There is no data available.
Irritation/Corrosion	There is no data available.
Sensitization	There is no data available.
Mutagenicity	There is no data available.
Carcinogenicity	There is no data available.
Reproductive toxicity	There is no data available.
Teratogenicity	There is no data available.
Specific target organ toxicity (single exposure)	There is no data available.
Specific target organ toxicity (repeated exposure)	There is no data available.
Aspiration hazard	There is no data available.
Information on the likely routes of exposure	Dermal contact. Eye contact. Inhalation. Ingestion.
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.

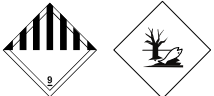
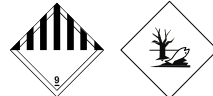
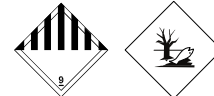
Section 11, Toxicological information	
SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS	
Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE	
Short Term Exposure	
Potential immediate effects	No known significant effects or critical hazards.
Potential delayed effects	No known significant effects or critical hazards.
Long Term Exposure	
Potential immediate effects	No known significant effects or critical hazards.
Potential delayed effects	No known significant effects or critical hazards.
Potential chronic health effects	
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	
Acute toxicity estimates	
Route	Oral
ATE value	108965.5 mg/kg

Section 12, Ecological information			
TOXICITY			
Product / Ingredient Name	Result	Species	Exposure
Copper	Acute EC50 1100 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 2.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute IC50 13 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute IC50 5.4 mg/L Marine water	Aquatic plants - Plantae - Exponential growth phase	72 hours
	Acute LC50 0.072 µg/l Marine water	Crustaceans - Amphipoda - Adult Fish -	48 hours
	Acute LC50 7.56 µg/l Marine water	Periophthalmus waltoni - Adult Algae -	96 hours
	Chronic NOEC 2.5 µg/l Marine water	Nitzschia closterium - Exponential growth phase	72 hours
	Chronic NOEC 7 mg/L Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
	Chronic NOEC 0.02 mg/L Fresh water	Crustaceans - Cambarus bartonii - Mature	21 days
	Chronic NOEC 2 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
PERSISTENCE AND DEGRADABILITY			
There is no data available.			
BIOACCUMULATIVE POTENTIAL			
There is no data 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 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. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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Section 14, Transport information

	DOT Classification	IMDG	IATA
UN number	UN3082	UN3082	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Copper)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Copper)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Copper)
Transport hazard class(es)	9 	9 	9 
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.
Additional information	Non-bulk packages of this product are not regulated as hazardous materials unless transported by inland waterway. The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

AERG: Not applicable.

Section 14, Transport information	
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.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.

Section 15, Regulatory information			
U.S. Federal regulations	TSCA 8(a) CDR Exempt/Partial exemption: Not determined United States inventory (TSCA 8b): All components are listed or exempted. Clean Water Act (CWA) 307: Copper		
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	Listed		
Clean Air Act Section 602 Class I Substances	Not listed		
Clean Air Act Section 602 Class II Substances	Not listed		
DEA List I Chemicals (Precursor Chemicals)	Not listed		
DEA List II Chemicals (Essential Chemicals)	Not listed		
SARA 302/304			
Composition/information on ingredients	No products were found.		
SARA 304 RQ	Not applicable.		
SARA 311/312			
Classification	Not applicable.		
Composition/information on ingredients	No products were found.		
SARA 313			
	Product name	CAS number	%
Form R - Reporting requirements	Copper	7440-50-8	1-5
	Aluminum	7429-90-5	1-5
Supplier notification	Copper	7440-50-8	1-5
	Aluminum	7429-90-5	1-5

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.

Section 15, Regulatory information	
STATE REGULATIONS	
Massachusetts	The following components are listed: Graphite, natural; Copper; Aluminum
New York	The following components are listed: Copper
New Jersey	The following components are listed: Distillates (petroleum), hydrotreated heavy paraffinic; Graphite, natural; Copper; Distillates (petroleum), hydrotreated heavy naphthenic; Aluminum
Pennsylvania	The following components are listed: Graphite, natural; Copper; Aluminum
California Prop. 65	No products were found.
INTERNATIONAL REGULATIONS	
International Lists	
Australia inventory (AICS)	All components are listed or exempted.
China inventory (IECSC)	All components are listed or exempted.
Korea inventory	All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC)	All components are listed or exempted.
Philippines inventory (PICCS)	All components are listed or exempted.
Chemical Weapons Convention List Schedule I Chemicals	Not Listed
Chemical Weapons Convention List Schedule II Chemicals	Not Listed
Chemical Weapons Convention List Schedule III Chemicals	Not Listed

Petroleum components contained in this product meet the IP 346 criteria of less than 3 percent DMSO-extractable components.

Section 16, Other information	
HAZARDOUS MATERIAL INFORMATION SYSTEM (U.S.A.)	
Health : 1* Flammability : 1 Physical hazards : 1	
Caution: HMIS® and NFPA ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks.	
The customer is responsible for determining the PPE code for this material.	
NATIONAL FIRE PROTECTION ASSOCIATION (U.S.A)	
Health : 1 Flammability : 1 Physical hazards : 1	
HISTORY	
Date of issue mm/dd/yyyy	01/01/2014
Version	1
Revised Section(s)	Not applicable.
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 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations	

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named 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.