SAFETY DATA SHEET

Copper Sulphate Passivation Soln

SECTION 1: IDENTIFICATION

Product identifier used on a label:	**Copper Sulphate Passivation Soln**
Product code:	52025
Recommended use of the chemical and restrictions on use:	Functional kit application for Stainless Steel Passivation
Chemical family:	
Name, address and phone # of supplier:	Aqua Bond Inc. PO Box 63635 Toronto, ON, M1V 5K2 {416) 754-7211
24 Hr. Emergency phone #	CANUTEC {613) 996-6666

SECTION 2: HAZARDS IDENTIFICATION

Classification of the chemical: This material is classified as hazardous under U.S. OSHA regulations {29CFR 1910.1200) {Hazcom 2012) and Canadian WHMIS regulations {Hazardous Products Regulations) {WHMIS 2015).

Hazard Classification:

Acute Toxicity - Oral - Category 3
Skin Corrosion/Irritation - Category 1
Serious Eye Damage/Eye Irritation - Category 1
Skin Sensitization - Category 1A
Germ Cell Mutagenicity - Category 2
Reproductive Toxicity - Category 2
Specific Target Organ Toxicity - Single Exposure - Category 1 (Hematopoietic System, heart, kidneys, liver, nervous system, respiratory system)
Specific Target Organ Toxicity - Repeated Exposure - Category 1 (Nervous system, hematopoietic system, kidneys, respiratory system)
Specific Target Organ Toxicity - Repeated Exposure - Category 2 (liver, stomach)
Hazardous to the Aquatic Environment - Acute - Category 3
Hazardous to the Aquatic Environment - Chronic - Category 2

Label elements:



Signal word: DANGER

Hazard statements:

H301 Toxic if swallowed
H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H341 Suspected of causing genetic defects

H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child
H370 Causes damage to organs
H372 Causes damage to organs through prolonged or repeated exposure
H401 Hazardous to the aquatic environment, acute hazard

Precautionary Statements: P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P260 Do not breathe dust/fume/gas/mist/vapours/spray
P261 Avoid breathing dust/fume/gas/mist/vapours/spray
P264 Wash thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P272 Contaminated work clothing should not be allowed out of the workplace
P273 Avoid release to the environment
P280 Wear protective gloves/protective clothing/eye protection/face protection
P281 Use personal protective equipment as required
P302+P352 IF On Skin: wash with plenty of soap and water
P305 + P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370 In case of fire: use fire-extinguishing media appropriate for surrounding materials to extinguish.
P391 Collect spillage
P501 Dispose of contents/container to an approved waste disposal plant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/ mixture: Pure substance Ingredient name	CAS Number	Concentration {%)
Aqua Pura	7732-18-5	97-99
Copper Sulphate Pentahydrate	76658-98-7	1-2
Sulphuric Acid	7664-93-9	1-2

SECTION 4: FIRST-AID MEASURES

Description of first aid measures.

Ingestion: Dilute immediately with water or milk, induce vomiting. Call a physician.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.
Skin contact: If on skin: wash with plenty of soap and water. May cause slight irritation.
Eye contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation, pain, and tearing.

Most important symptoms and effects, both acute and delayed:
Caution! Hazardous liquid. Avoid ingestion or contact with skin, eyes, or clothing. If ingested, dilute with water or milk and induce vomiting. Call a physician. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention.
EYE CONTACT: May cause irritation, redness, pain, and tearing.
SKIN CONTACT: May cause slight irritation.

Medical Attention or Special Treatment Needed:
Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water. If possible, wipe off areas of contact with dry cloth before flushing with water).

SECTION 5: FIRE-FIGHTING MEASURES

Fire: Not considered to be a fire hazard. May react with metals or heat to release flammable hydrogen gas.
Explosion: Not considered to be an explosion hazard.
Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.
Special Information:
Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear protective gloves and eye protection.

Environmental precautions

Avoid dispersal of spilled material and runoff. Prevent 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 containment and cleaning up

Absorb with inert absorbent such as dry clay, sand, or diatomaceous earth, commercial sorbents, and place in a chemical waste container for proper disposal. Dispose of in accordance with local regulations.

Special spill response procedures
In case of transportation accident, contact CANUTEC (613) 996-6666.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Wear personal protective equipment to avoid direct contact with this chemical. Avoid breathing mist or spray. Avoid eye and skin contact. Only use where there is adequate ventilation. Avoid heating that will increase the amount of vapours. Do not expose to heat and flame. Prevent accidental contact with incompatible chemicals. Keep containers tightly closed when not in use or empty. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.

Conditions for safe storage: Store in accordance with local regulations. Store in a segregated and approved area. Store in original acid-resistant container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be resealed and kept upright. Do not store in unlabeled containers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
Control parameters:
Exposure Limits ppm(mg/m^3)
Ingredient CAS No. ACGIH

					NIOSH			OSHA	
		TLV	**STEL**	**ES-TWA**	**TWA**	**IDLH**	**PEL**	**STEL**	**IDLH**
Aqua Purified	7732-18-5		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper Salt	7758-99-8	N/A	N/A	1	1	100	1		N/A
Sulphuric Acid	7664-93-9	0.2			None Identified				N/A

Individual protection measures:
Engineering controls: No specific controls are needed. Normal room ventilation is adequate.
Respiratory Protection: Normal room ventilation is adequate.
Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves.
Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.
Personal Protective Equipment: Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear Blue Solution
Odour: Odourless
pH range of 1% solution b.v.: <2
Melting point: Not available.
Freezing point: 0°C
Boiling point: >100° C
Flash point: Not available
Evaporation rate: Similar to water
Flammability: Not available
Upper and lower flammability limits: Not available
Vapour pressure: Not available
Vapour density: Similar to water
Specific Gravity: 1.1
Solubility: Miscible.
Auto-ignition temperature: Not available
Decomposition temperature: Not available.
Viscosity: Not available.
VOC: 0

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive.
Chemical stability: Stable at normal temperatures.
Possibility of Hazardous Reactions (Polymerization): Will not occur.
Conditions to Avoid: Incompatible materials.
Incompatible Materials: Hydroxylamine, alkalis, phosphates, hydrazine, finely powdered metals, active metals (Potassium, Sodium, Magnesium and Zinc).
Hazardous decomposition products: Highly toxic fumes of Sulphur oxides

SECTION 11: TOXICOLOGICAL INFORMATION

See section 4: most important symptoms and effects, both acute and delayed.

Component Analysis: LD50/LC50

Copper Salt: Cas No. 7758-99-8 Oral LD50 Rat 300 mg/kg
Copper Salt : Cas No. 7758-99-8 Inhalation LC50 Rat 510mg/m^3/2 h

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Copper Sulphate: Copper has high chronic and acute toxicity to aquatic life.
Copper Sulphate: 96 Hr LC50 Lepomis macrochirus: 0.6 -1.15 mg/L [semi-static]; 96 Hr LC50 Lepomis macrochirus: 0.96 - 1.8 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 0.1478 - 0.165 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 0.09 - 0.19 mg/L [static]; 96 Hr LC50 Pimephales promelas: 0.6752 mg/L [static]
Persistence and degradability: highly persistent with a > 200 day half-life. Not expected to biodegrade.
Bioaccumulative potential: This material is expected to bioaccumulate significantly.
Mobility in soil:
Other adverse effects:

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods: Waste disposal recommendations: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14: TRANSPORT INFORMATION

	TDG
UN Number:	UN3264
UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULPHURIC ACID, COPPER SULPHATE MIXTURE)
Transport hazard class:	8
Packing group:	II
Environmental hazard:	Yes

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

Canada inventory {DSL): All components are listed. HS Code: 2833.25.00 ECCN: EAR99

SECTION 16: OTHER INFORMATION

Revision date: January 7, 2024

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labeling 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

Disclaimer

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