

## COPPER REAGENT #2

Product: R-0861

### Section 1: PRODUCT INFORMATION

**Chemical family:** Mixture.

**Supplier:** Lowry & Associates, div. of Chem-Aquascience, Inc  
Canadian Master Distributors for Taylor Technologies, Inc.  
4-1151 Gorham Street  
Newmarket, ON.  
L3Y 8Y1  
Tel: 905-836-0505  
Fax: 905-895-4539.

**Emergency Phone Number:** Canutec 613-996-6666.  
905-625-9117 (Monday - Friday 9 a.m. - 4 p.m.).

**Manufacturer:** Taylor Technologies Inc.  
31 Loveton Circle  
Sparks, MD USA 21152  
Tel: 410-472-4340.

**TDG classification:** FLAMMABLE LIQUID, N.O.S. (isopropyl alcohol)  
UN1993  
Class 3  
PG III.



**WHMIS classification:**

B2, D2B.



**DSL status:** The substance(s) listed in section 2 appear on the Domestic Substances List.

**Product name:** Copper Reagent #2.

### Section 2: HAZARDOUS INGREDIENTS

C.A.S.	CONCENTRATION %	Ingredient Name	T.L.V.	LD/50	LC/50
371-81-0	<1	BISCYCLOHEXANONE OXALDIHYRAZONE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
67-63-0	<50	2-PROPANOL	200 PPM	5000 MG/KG RAT ORAL  3600 MG/KG MOUSE ORAL  6410 MG/KG RABBIT ORAL  12,800 MG/KG RABBIT DERMAL	53,000 MG/M3 MOUSE INHALATION 72,600 MG/M3 RAT INHALATION 16,000 PPM/8H RAT INHALATION

## Section 2A: ADDITIONAL INGREDIENT INFORMATION

**Note:** This product contains water (CAS # 7732-18-5).

## Section 3: PHYSICAL DATA

**Physical state:** Liquid.

**Appearance & odor:** Alcohol odour.  
Clear, colourless.

**Odor threshold (ppm):** Not available.

**Vapour pressure (mmHg):** 22

**Vapour density (air=1):** 2.2

### Volatiles (%)

**By volume:** 99

**Evaporation rate  
(butyl acetate = 1):** Not available.

**Boiling point (°C):** 183°F (83.8°C)

**Freezing point (°C):** Not available.

**pH:** 4.3

**Specific gravity @ 20 °C:** 0.92

**Solubility in water (%):** Soluble.

**Coefficient of water\oil dist.:** Not available.

## Section 4: FIRE & EXPLOSION DATA

**Flammability:** Flammable.

**Conditions of flammability:** Vapours may travel to a source of ignition and flash back.  
Heat, sparks and open flames.

**Extinguishing media:** Carbon dioxide, dry chemical, foam.  
Water spray.

**Special procedures:** Self-contained breathing apparatus required.  
Firefighters should wear the usual protective gear.  
Use water spray to disperse vapors.  
Use water spray to cool fire exposed containers.

**Auto-ignition temperature (°C):** Not available.

**Flash point (°C), method:** Closed Cup.  
23.8

**Lower flammability  
limit (% vol):** 3.3

**Upper flammability  
limit (% vol):** 18.9

### Explosion Data

**Sensitivity to static discharge:** Not available.

**Sensitivity to mechanical impact:** Not available.

**Hazardous combustion products:** Toxic fumes.

**Explosive power:** Not available.

#### Section 5: REACTIVITY DATA

**Chemical stability:** Stable under normal conditions.

**Conditions of instability:** Extreme temperatures.  
Sparks and open flames.  
Extreme heat.

**Hazardous polymerization:** Not available.

**Incompatible substances:** Oxidizers.

**Hazardous decomposition products:** See hazardous combustion products.

#### Section 6: TOXICOLOGICAL PROPERTIES

**Route of entry:** Skin contact, inhalation and ingestion.

Effects of acute exposure

**Eye contact:** Irritant.

**Skin contact:** Irritant.

**Inhalation:** Irritant.  
May cause narcosis.

**Ingestion:** Irritant.  
May cause severe irritation of the gastrointestinal tract.

**Effects of chronic exposure:** Pre-existing eye, skin and respiratory disorders may be aggravated.

**LD50 of product, species & route:** Not available for mixture, see the ingredients section.

**LC50 of product, species & route:** Not available for mixture, see the ingredients section.

**Exposure limit of material:** Not available for mixture, see the ingredients section.

**Sensitization to product:** Not available.

**Carcinogenic effects:** Not listed as a carcinogen.

**Reproductive effects:** Not available.

**Teratogenicity:** Not available.

**Mutagenicity:** Not available.

**Synergistic materials:** Not available.

#### Section 7: PREVENTATIVE MEASURES

##### Precautionary Measures

**Gloves/Type:**



Wear protective gloves.

**Respiratory/Type:** None required under normal use.



NIOSH approved respirator, if necessary.

**Eye/Type:**



Safety glasses.

**Footwear/Type:** Safety shoes per local regulations.

**Clothing/Type:**



Lab coat.

**Other/Type:** Eye wash facility should be in close proximity.  
Emergency shower should be in close proximity.

**Ventilation requirements:** Provide sufficient mechanical ventilation to maintain exposure below TLV.

**Leak/Spill:** Absorb with inert material.  
Wear appropriate protective equipment.  
Place in a closed container for disposal.

**Waste disposal:** In accordance with municipal, provincial and federal regulations.

**Handling procedures and equipment:** Keep away from heat, sparks, and open flame.  
Avoid breathing vapors/mists.  
Use adequate ventilation.  
Wear personal protective equipment appropriate to task.  
Wash thoroughly after handling.  
Avoid contact with skin, eyes and clothing.  
Launder contaminated clothing prior to reuse.  
Do not ingest.

**Storage requirements:** Keep out of direct sunlight.  
Store in a cool and dry place.  
Keep away from ignition sources.

**Special shipping information:** See transportation information.

## Section 8: FIRST AID MEASURES

**Skin contact:** Wash thoroughly with soap and water.  
Seek medical attention immediately.

**Eye contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting upper and lower lids. Get prompt medical attention.

**Inhalation:** Remove victim to fresh air.  
Obtain medical attention.

**Ingestion:** Obtain immediate medical attention.  
Induce vomiting as directed by medical personnel.  
If conscious, give several glasses of water.  
Never give anything by mouth to an unconscious person.

**Additional information:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any inaccuracies.

<b>Section 9: ADDITIONAL INFORMATION</b>
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**General note:** This material safety data sheet was prepared from information obtained from various sources, including product suppliers and the Canadian Center for Occupational Health and Safety.

**Data prepared by:** Lowry & Associates, div. of Chem–Aquascience, Inc  
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L3Y 8Y1  
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