RANK CHEMICAL

Safety Data Sheet

SECTION 1 Identification

Product Name: Chem**TEST** COD Reagent tubes (0-1500ppm)

Catalogue Number: H800-01-102

Recommended Use: Laboratory Chemical

Instrument Calibration. This product is intended for laboratory testing. This product shall be used by trained personnel only. **Restriction on use:** Do not use this product outside of a laboratory. This product should not be used by untrained personnel.

Manufacturer/ Supplier:

Penang Office	Johor Office
1904, Jalan Bukit Minyak,	18, Jalan Molek 2/5,
Taman Sri Mangga, 14000	Taman Molek, 81100
Bukit Mertajam, Pulau	Johor Bahru, Johor,
Pinang, Malaysia	Malaysia.
Phone: +604 507 5168	Phone: +607 353 9288
Fax: +604 507 4243	Fax: +607 358 1088
	1904, Jalan Bukit Minyak, Taman Sri Mangga, 14000 Bukit Mertajam, Pulau Pinang, Malaysia Phone: +604 507 5168

In the event of a transport emergency, call (24 h): +6016 7729388 In the event of medical emergency, call your local poison centre or equivalent.

Hazards Identification SECTION 2 Emergency Overview GHS **Classification:** Acute toxicity, Oral (Category 2) **Pictograms:** Skin corrosion, Dermal (Category 1) Carcinogen (Category 1) Chronic aquatic toxicity (Category 1) Signal Word: Danger **Hazard Statements H301:** Toxic if swallowed. H314: Causes severe skin burns and eye damage. H350: May cause cancer. H410: Very toxic to aquatic life with long lasting effects. **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. **P264:** Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P310: Immediately call a POISON CENTER or doctor/physician.

P330: Rinse mouth.

P363: Wash contaminated clothing before reuse.

P391: Collect spillage.

P405: Store locked up.

P501: Dispose of contents/container to an approved waste disposal site and according to federal, regional and local government requirements.

Other Hazards: No information found.

SECTION 3	Composition and Information on Ingredients		
CAS No.	Chemical Name	Percentage	<i>Classification</i> ((EC) No 1272/2008)
7783-35-9	Mercury(II) sulfate	< 1%	H300 - Acute Tox. 2, H311 - Acute Tox. 3, H410 - Aquatic Chronic 1
7778-50-9	Potassium Dichromate	< 1%	H272 - Ox. Sol. 2, H301 - Acute Tox. 3 *, H312 - Acute Tox. 4 *, H314 - Skin Corr. 1B, H317 - Skin Sens. 1, H330 - Acute Tox. 2 *, H334 - Resp. Sens. 1, H340 - Muta. 1B, H350 - Carc. 1B, H360 - Repr. 1B, H372 - STOT RE 1
10294-26-5	Silver Sulfate	< 1%	H318 - Eye Dam. 1, H400 - Aquatic Acute 1, H410 - Aquatic Chronic 1
7664-93-9	Sulfuric Acid	80 - 100%	H314 - Skin Corr. 1A
7732-18-5	Water	5 - 15%	Not Classified

SECTION 4 First Aid Measures

In case of contact: Eye: Immediately flush eyes with plenty of water for at least 15 minutes, holding the eyelids open. Neutral saline may be used as soon as it is available. Do NOT interrupt flushing. If irritation persists, repeat flushing. Get medical aid immediately. Immediately flush skin with plenty of water for at least 30 minutes while removing contaminated clothing Skin: and shoes. Do NOT interrupt flushing. Get medical aid immediately. For a precaution: Never give anything by mouth to an unconscious person. If victim is conscious and alert, Ingestion: rinse mouth with water. Do NOT induce vomiting. Get medical aid immediately. Take proper precautions to ensure your own safety before attempting rescue (e.g., wear appropriate Inhalation: protective equipment). If breathing, move person into fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid immediately. Most important May cause burns. Symptoms: Notes to Treat symptomatically and supportively. **Physician/Doctor:**

SECTION 5 Fire-fighting Measures

Fire Hazard Summary:

Product is not flammable or combustible. Firefighters should wear self-contained respirator and full protective gear. During a fire, irritating and toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:	Whichever is most appropriate for the surrounding fire. Use flooding quantities of water spray or fog.	
Extinguishing Media to be Avoided:	No information found.	
Combustion and Ther Decomposition Produ	Sultur ovides Mercury/ Mercury ovides	
Special protective equipment and precautions for fire- fighters	Firefighters should wear self-contained respirator and full protective gear.	

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION

Health:	4 – Very short exposure could cause death or major residual injury.
Flammability:	0
Reactivity:	0
Special Hazard:	

SECTION 6 Accidental Release Measures

Spill Precautions:

Personal precautions: Use personal protective equipment.

Protective equipment and emergency procedures: Ensure adequate ventilation. Evacuate personnel to safe areas.

Clean-up:

SMALL SPILLS: Sweep and collect material in suitable, covered, labeled containers. Area should be thoroughly cleaned. LARGE SPILLS: Evacuate area. Contact fire and emergency services and supplier for advice.

SECTION 7 Handling and Storage

Handling:

Use only with adequate ventilation and/or personal protective equipment. Wash thoroughly after using. Avoid contact with skin and eyes. Avoid contact with all incompatible materials.

Storage:

Store in a tightly closed container in a cool, well ventilated and dry area. Store away from incompatible materials, heated areas, sparks, and flames. Do not store in metal or glass containers.

Additional Information:

The product is intended for use in a laboratory. The product as supplied is stable under normal laboratory conditions.

SECTION 8 Exposure Controls and Personal Protection

EXPOSURE GUIDELINES

Mercury(II) Sulfate

OSHA OEL: 0.025 mg/m³ TWA

Preventive Measures:

Eye / Face protection:	Eye-wash station in proximity. Avoid contact with skin and eyes.
Skin protection:	Wear suitable clothing and gloves. Refer to OSHA's protection regulations in 29 CFR 1910.133 or European Standard EN166.
Inhalation / Ventilation:	Use in a chemical fume hood.
Personal Hygiene:	Do not eat or drink in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Appropriate Engineering Controls:	Use laboratory fumehoods in case of insufficient ventilation.

SECTION 9 Physical and Chemical Properties

Information on basic physical and chemical properties		
Physical State	Liquid	
Appearance	Brownish	
Odor	Odorless	
Property Values		
pH VALUE	No data available	
Melting Point/Range	No data available	
Boiling Point/Range	No data available	
Evaporation rate	No data available	
Flammability (solid, gas)	No data available	
Vapor Pressure	No data available	
Vapor Density	No data available	
Density	No data available	
Specific Gravity	No data available	
Water Solubility	Soluble	
Partition coefficient: n-	No data available	
octanol/water		
Auto ignition Temperature	No data available	
Decomposition Temperature	No data available	
Viscosity	No data available	

SECTION 10 Stability and Reactivity

Reactivity:	No information found.
Chemical stability:	Stable at room temperature and conditions of use.
Incompatible Materials:	No information found.
Conditions to avoid:	High temperatures.
Hazardous Decomposition	Sulfur oxides, Mercury/ Mercury oxides.
Products:	
Hazardous Polymerization:	None reported.

SECTION 11 Toxicological Information

Potential Health Effects

_			
Eye: Skin:	May cause eye irritation or burns.		
-	May be harmful if absorbed through skin. May cause skin irritation or burns. Toxic if swallowed.		
Ingestion: Inhalation:			
Innalation:	May cause respiratory tract irritation.		
Manaum (II) Cultata	Effects of Short-Term (Acute) Exposure		
Mercury(II) Sulfate			
LD50/LC50:	LD50 (lethal dose, 50% kill) Oral, rat – 57 mg/Kg		
	LD50 (lethal dose, 50% kill) Dermal, rat – 625 mg/Kg		
_ . .	Effects of Long-Term (Chronic) Exposure		
Respiratory or skin sensitization:	No information found.		
Germ Cell Mutagenicity:	No component of this product at levels greater than 0.1% is classified as a mutagen.		
Reproductive Toxicity:	No component of this product at levels greater than 0.1% is classified for reproductive toxicity.		
STOT- Single exposure	No definitive information available on target organs toxicity.		
STOT- Repeated exposure	Inorganic mercury may cause caustic injury to the gastrointestinal tract and the kidney.		
Aspiration Hazard:	No information found.		
Carcinogenicity:	Listed as a carcinogen by IARC, or CA Prop 65.		
	Component(s) of this preparation listed by the IARC Monographs: Mercury and inorganic mercury compounds.		
	Component(s) of this preparation appearing in the list (June 22, 2012) of chemicals known to the state of California to cause cancer or reproductive toxicity: Mercury and		
	Mercury Compounds.		
Signs and symptoms of exposure:			

Material can be corrosive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

SECTION 12 Ecological Information

Eco- toxicity: Very toxic to aquatic life with long lasting effects.

Mobility in soil: no information about this preparation is available.

Persistance and degradability: no information about this preparation is available.

Bioaccumulative potential: no information about this preparation is available.

SECTION 13

Disposal Considerations

Product disposal:

The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, run off and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements. Contact a licensed professional waste disposal service to dispose of this material.

Review federal, provincial and local government requirements prior to disposal. Store material for disposal as indicated in Storage Conditions.

Contaminated packaging: Dispose of as unused product.

SECTION 14	Transp	ort Informatio	1	
IMDG (sea):				
UN-Number:	3264	Class:	8	
Packing group:	II			
Proper shipping nar	ne:	Corrosive liquid,	acidic, inorganic, n.o.s. (sulfuric acid)	
Marine pollutant:	Yes			
ADR/DOT (road):				
UN-Number:	3264	Class:	8	
Packing group:	II			
Proper shipping nar	ne:	Corrosive liquid,	acidic, inorganic, n.o.s. (sulfuric acid)	
Marine pollutant:	Yes			
ICAO/IATA (air):				
UN-Number:	3264	Class:	8	
Packing group:	II			
Proper shipping nar	ne:	Corrosive liquid,	acidic, inorganic, n.o.s. (sulfuric acid)	
Marine pollutant:	Yes			

SECTION 15	Regulatory Information
US Federal:	
TSCA	Listed on the TSCA Inventory.
US State:	
California Prop. 65	See Section 11.
<u>EU</u>	
Classifications:	C - Corrosive
	T+ - Very Toxic
	N – Dangerous for the environment
Risk Phrase(s):	R28- Very toxic if swallowed.
	R33- Danger of cumulative effects.
	R34- Causes severe burns.
	R45- May cause cancer.
	R50/ 53- Very toxic to aquatic organisms and may cause long-term
	adverse effects in the aquatic environment.

SECTION 16 Other I	nformation
Revised:	June 29, 2020
Date of previous revision (s):	April 10, 2019
Hazard Indications (H) Regula	tion (EC) No 1272/2008 quoted in Sections 3.
Ox. Sol. 2	Oxidising Liquids, Oxidising Solids
Acute Tox. 3 *	Acute Toxicity Oral
Acute Tox. 4 *	Acute Toxicity Dermal
Skin Corr. 1B	Skin Corrosion/ Irritation
Skin Sens. 1	Sensitization Skin
Acute Tox. 2 *	Acute Toxicity Inhalation
Resp. Sens. 1	Sensitization Respiratory

Muta. 1B Carc. 1B Repr. 1B STOT RE 1	Germ Cell Mutagenicity Carcinogenicity Reproductive Toxicity Specific Target Organ Toxicity, Repeated Exposure
H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.

The statements contained herein are offered for informational purposes only and are based upon technical data. Hooker Chemical believes them to be accurate but does not purport to be all-inclusive. The above-stated product is intended for use only by persons having the necessary technical skills and facilities for handling the product at their discretion and risk. Since conditions and manner of use are outside our control, we make no warranty of merchantability or any such warranty, express or implied with respect to information and we assume no liability resulting from the above product or its use. Users should make their own investigations to determine suitability of information and product for their particular purposes.