

BC Assay

MATERIAL SAFETY AND DATA SHEET

Section 1		Chemical Product and Company Identification	
Name	BC Assay kit	Reagent A Reagent B	Cat.#UP40840- Cat #UP95424- Cat #UP95425-
Synonyms (CAS, chemical names, tradenname, abbreviates...)	Protein determination kit based on bicinchoninic acid		
Company identification	UPTIMA-INTERCHIM	213 J.F.Kennedy, 03100 Montluçon (FRANCE) Tel. :+33 (0)3 70 03 88 55 Fax: +33 (0) 3 70 03 82 60 e-mail: uptima@interchim.com	
In case of Emergency	In Europe: Call UPTIMA-INTERCHIM out of office: Centre anti Poisons de Lyon In US: call CHEMTREC		Tel.: +33 (0)3 70 03 88 55 Tel.: 04 72 11 69 11 Tel.: 800;424;9300

Section 2		Composition, Information on Ingredients	
Component	Hazardous ingredients (Identification, CAS, Name...)	Information (% weight, state...)	
Reagent A (#UP95424)	Sodium carbonate [Xi, R36/37/38] Bicinchoninic acid (C ₂₀ H ₁₀ N ₂ Na ₂ O ₄) [-, not controlled]	1-3% aqueous solution BCA and buffering agents	
Reagent B (#UP95425)	Copper (II) Sulfate (CAS:7758-99-8) [T+, R26/27/28, R36]	1-4% aqueous solution	
Albumin Standard (#UP36859)	Serum Bovin Albumin [-]	2mg / ml solution	

Section 3		Hazards Identification	
Label precautionary statement	Reagent A: IRRITANT Reagent B: TOXIC (USA), HARMFULL (EU)		
Emergency overview	-Reagent A: irritant if swallowed or if eye or skin contact. -Reagent B: Possible risk of damage if swallowed, and irritations if eye or skin contact See too section 8		
Potential health effects (Eye, Skin, Ingestion, Inhalation, Chronic)	-Reagent A: May cause eye irritation May cause irritation to other organs, but toxic properties have not been fully investigated; No known effect on skin contact No known effect from repeated or prolonged exposure -Reagent B: target organs : liver and kidneys, may impair fertility, possible risk of harm to the unborn child, harmful if swallowed, risk of damages to eyes, irritating to respiratory system, may cause irritation and sensitization by skin contact		
Other information (over-exposure, toxicity...)			
Precautionary guidelines	-Reagent A: avoid contact with eyes, skin, and clothing; avoid breathing vapor -Reagent B: avoid contact with eyes, skin and clothing by wearing gloves when handling		

Section 4		First aid Measures	
General measures	Remove contaminated clothing promptly. Allow the victim to rest in a well ventilated area, Seek medical attention		

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Emergency first measures (Eyes, Skin, Ingestion, Inhalation...)	-Reagent A: avoid contact with eyes, skin, and clothing; avoid breathing vapor In case of skin contact, wash thoroughly (>15min) after handling-contact In case of eye contact, rinse immediately by separating eyelids, and seek for medical advice If swallowed, do NOT induce vomiting, If conscious and alert, rinse mouth and drink water. -Reagent B: In cas of skin contact, wash skin with soap and plenty of water In case of eye contact, rinse immediately with plenty of cold water while separating eyelids, and seek for medical advice. If swallowed, do NOT induce vomiting, If conscious and alert, rinse mouth and drink water.
Notes to physicians	Treat symptomatically

Section 5 Fire Fighting Measures	
Physical Information (Flammability, auto-ignition, flash point...)	Reagent A: Combustible Reagent B: Non Combustible see section 10
General information	As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protected gear (see section 8)
Extinguishing media	In case of fire, use water or extinguishing media (dry chemicals, CO ₂ , foam) appropriate to surrounding fire conditions.
Spills and Leaks	Sweep up or vacuum material and place into a suitable disposal container

Section 6 Accidental Release Measures	
General information	Wear a proper personal protective equipment to avoid skin and eye exposure (see section 8): wear respirator, rubber boots, chemical resistant gloves
Spills and Leaks	Sweep up or vacuum material and place into a suitable disposal container. Clean contaminated surfaces by spreading water Dispose off according to local and regional authority requirements For large spill and leak, keep away from heat, from any source of ignition
Other	

Section 7 Handling and Storage	
Handling	Wear a a proper personal protective equipment to avoid skin and eye exposure (see section 8)
Storage	Store all components well tightened at room temperature, or for long term storage in a cool place (a precipitate may occur, and should be dissolve again before using).

Section 8 Exposure Controls, Personal Protection	
Engineering controls	Store properly away from childrens. Ensure there is eyewash stations and safety showers close to the work-stations. Avoid breathing vapors, and provide an exhaust ventilation if prolonged work periods.
Personal protection (eyes, hands, body, respiratory...)	For normal use, rubber gloves usually sufficient when handled properly. Wear protective clothing (laboratory suit) to prevent skin contact In case of large spill, additionnal protective wears may be needed (boots, splash goggles and safety glasses...) Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions
Exposure limits	consult local authorities

Section 9 Physical and Chemical Properties	
Physical state / Appearance	Reagent A: clear solution Reagent B: blue solution Standard: off white solution
Odor	No remarkable odor
Other (pH, Melting/Freezing Point, Vapor Pressure, Vapor Density, Volatility, Boiling Point, Viscosity, Flash point, Auto-ignition temperature, Explosion limits (low.Upp.), Specific Gravity / Density, Molecular Formula /MW, CAS...)	Not available. All reagents are aquous solutions

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Comments	
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Section 10 Stability and Reactivity	
Chemical Stability Chemical Reactivity (conditions, by-products...)	This product is stable under normal storage and handling conditions (normal temperature and pressure)
Incompatibilities (conditions, materials...)	Reagent A: No records Reagent B: Metals; corrodes steel
Decomposition polymerisation (conditions, materials...)	Hazardous combustion or decomposition not known products of combustion are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂), metallic oxides (sulfur oxides) No Hazardous polymerisation
Comments	

Section 11 Toxicological Information	
Toxicity in animals in human	Reagent A is not toxic [Estimated acute toxicity (LD50): 500000 mg/kg [Rat, oral]. Reagent B is nocive if absorbed through skin; both may cause skin irritation to skin and respiratory mucous and digestive tract (possible damage to eye, formation of methemoglobin); it might be toxic at high doses if swallowed. Acute oral toxicity (LD50) estimated for the mixture: 825 mg/kg (Mouse, oral), 52500 mg/kg (Rat, dermal). No toxic information available for human.
Carcinogenicity	Not available
Remarks (RTECS...)	(reagent B) Possible risk of congenital malformation in the fetus May cause reproductive disorders Chronic copper poisoning pattern is hepatic cirrhosis, brain damage and demyelination, kidney defects. RTECS#GL8900000

Section 12 Ecological Information	
Ecotoxicity (BOD5, COD...)	Not available
Biodegradation	
Mobility	
Remarks	

Section 13 Disposal Considerations	
Waste	Not available
Remarks	Consult your local or regional authority or a licensed professional waste service

Section 14 Transport Information	
Classifications (Other classifications)	Not controlled under IATA, ADR (Europe) RID/ADR: Non-dangereux pour le transport routier IMDG: Non-hazardous for sea transport. IATA: Non-hazardous for air transport Not controlled under TDG(Canada), IMDG, DOT (USA)
Shipping	Room temperature
Hazards Class	
UN Class	
Packing Group	
Comments (marine pollutants...)	

Section 15 Regulatory Information	
Classification Europe	* European labeling in accordance with EC directives CAUTION: product not fully tested Hazard symbols: Reagent A: Xi Reagent B: X _n Risk phrases: Reagent A: R36 Reagent B: R21/22 Safety phrases: Reagent A: S26-36 Reagent B: S1/2, S36/37, S45

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Other classifications	<p>* WGK (Water Danger/Protection) : CAS# 69-78-3: 1</p> <p>* Canada: CAS# 69-78-3 is listed on Canada's DSL/NDSL List, but not listed on Canada's Ingredient Disclosure List.</p> <p>* US FEDERAL: CAS# 69-78-3 is listed on the TSCA inventory.</p>
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Section 16	Additional Information
MSDS validation	UPTIMA-INTERCHIM, E08E
Comment	<p><i>The information above is believed to be accurate and represents the best information currently available to us. It is noteworthy products may not be thoroughly investigated. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages</i></p>