MultiCyt® QBeads Rat PlexScreen: Assay Buffers, Standard, Capture Beads, and Detection Reagent

1 Identification

GHS Product Identifier

MultiCyt® QBeads Rat PlexScreen: Assay Buffers, Standard, Capture Beads, and Detection Reagent
Contains: Polystyrene beads
Assay Buffer: phosphate buffered saline (sodium phosphate dibasic, potassium phosphate monobasic, water) + 1% Bovine Serum Albumin; sodium azide 0.02
Standard: CMIT/MIT mixture (3:1) - a mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No 247-500-7] and 2methyl-4-isothiazolin-3-one [EC No 220-239-6] (3:1) Polystyrene beads, Sodium chloride, sucrose, BSA, Magnesium Nitrate, Polysorbate 20 (Tween 20), Magnesium chloride, Tris hydrochloride, Trizma base
Detection Reagent: Bovine Serum Albumin, sodium azide 0.02

Other means of identification

Product Numbers: 90880 - 90891

Recomended use of the chemical and restriction on use

SU24 scientific research and development.
This product is manufactured and sold by IntelliCyt Corporation for research use only. The kit and components are not intended for diagnostic or therapeutic use.

Supplier's details

IntelliCyt Corporation
9620 San Mateo Blvd. NE
Albuquerque, NM 87113
USA

Emergency phone number

+1 505-345-9075

2 Hazard(s) identification

Classification of the substance or mixture

Health Hazard

Category	Hazard
2	eye irritant
3	toxic in contact with skin
3	toxic if swallowed or inhaled
1B	causes severe skin burns and eye damage

Environmental Hazard

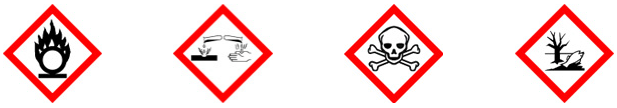
1	very toxic to aquatic life

Physical Hazard

Category	Hazard
3	oxidizing solid

GHS label elements

Danger



Toxic if swallowed

Toxic in contact with skin

Causes severe skin burns and eye damage

Causes skin irritation

Causes serious eye irritation

Toxic if inhaled

Very toxic to aquatic life

Keep out of reach of children.

Read label before use.

Do not breathe dust/fume/gas/mist/vapours/spray.

Do not get in eyes, on skin, or on clothing.

Wash hands/skin thoroughly after handling.

Use personal protective equipment as required.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Gently wash with plenty of soap and water.

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

3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
sodium chloride	7647-14-5	231-598-3	0	
sucrose	57-50-1	200-334-9	0	
bovine serum albumin	9048-46-8	232-936-2	0	
magnesium nitrate	10377-60-3	233-826-7	0	
polysorbate 20 (TWEEN)	9005-64-5	500-018-3	0	
magnesium chloride	7786-30-3	232-094-6	0	
tris(hydroxymethyl)aminomethane hydrochloride	1185-53-1	214-684-5	0	
trizma base	77-86-1	201-064-4	0	
Polystyrene Beads Organic Dye Stained	9003-53-6	500-008-9	0	
5-chloro-2-methyl-4-isothiazolin-3-one	26172-55-4	247-500-7	0	
2-methyl-4-isothiazolin-3-one	2682-20-4	220-239-6	0	
sodium azide	26628-22-8	262-822-8	0	
sodium phosphate dibasic	7558-79-4	231-448-7	0	
potassium diphosphate	7778-77-0	230-785-7	0	
Polystyrene Beads Organic Dye Stained	9003-53-6	500-008-9	0	

4 First-aid measures

Description of necessary first-aid measures

Eye Exposure: Hold eye open and rinse slowly and gently flush with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Clothing and/or Skin Exposure: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice

If Inhaled: Move person to fresh air. Call a poison control center or doctor for further treatment advice.

If Swallowed: Call a poison control center or physician immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed

Symptoms and effects unlikely to be acute or delayed.

Indication of immediate medical attention and special treatment needed, if necessary

No additional special treatment.

5 Fire-fighting measures

Suitable extinguishing media

Extinguishing media: Use water spray (fog), foam, dry powder, or carbon dioxide, as appropriate for surrounding fire and materials.

Unsuitable extinguishing media: Strong water jet.

Specific hazards arising from the chemical

No hazards.

Special protective actions for fire-fighters

As with any fire, fire fighters wear self-contained breathing appartus and full protective gear to prevent contact with skin and eyes.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

If product is released or spilled, take proper precautions to minimize exposure by using appropriate personal protective equipment (see Section 8). Area should be adequately ventilated. Do not breathe mist/vapors/spray.

Environmental precautions

Do not empty into drains. Avoid release to the environment.

Methods and materials for containment and cleaning up

Dike area to contain spill. Maintain ventilation until all vapors have been eliminated. Take precautions as necessary to prevent contamination of ground and surface waters. If vials are crushed or broken, DO NOT CAUSE MATERIAL TO BECOME AIRBORNE. For small spills, wear gloves and soak up material with absorbent, e.g., paper towels. For large spills,

cordon off spill area and minimize the spreading of spilled material. Soak up material with absorbent. Collect spilled material, absorbent, and rinse water into suitable containers for proper disposal in accordance with applicable waste disposal regulations (see Section 13). Decontaminate the area twice.

7 Handling and storage

Precautions for safe handling

Use only in well-ventilated areas. Handle and open container with care. Always close containers tightly after removal of product.

Follow recommendations for handling pharmaceutical agents (i.e., use of engineering controls and/or other personal protective equipment if needed). Avoid contact with skin, eyes and clothing. Provide eye shower and label its location conspicuously. Wash hands and face before breaks and after working with product. When using product, do not eat, drink, smoke, sniff.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Eliminate all ignition sources. Separate from oxidizing materials. 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.

8 Exposure controls/personal protection

Control parameters

Facilities storying or using this material should be equipped with eyewash facility and a safety shower. Use process enclosures and local exhaust ventilation.

Appropriate engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

Individual protection measures

Respiratory protection: Respiratory protection is not required.

Hand protection: Handle with gloves. Inspect gloves prior to use.
Gloves: Natural latex, Natural rubber, Nitrile.
Use proper glove removal technique (without touching glove's surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Skin protection: Choose skin protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. For this product wear lab coat.

Eye/face protection: Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

Environmental Exposure Controls: Avoid release to the environment and operate within closed systems wherever practicable. Air and liquid emissions should be directed to appropriate pollution control devices. In case of spill, do not release to drains. Implement appropriate and effective emergency response procedures to prevent release or spread of contamination and to prevent inadvertent contact by personnel.

Other protective measures: Wash hands in the event of contact with this product/mixture, especially before eating, drinking or smoking. Protective equipment is not to be worn outside the work area (e.g., in common areas or out-of-doors).

9 Physical and chemical properties

Physical and chemical properties

Bovine Serum Albumin

Physical State	Liquid
Appearance	Colorless
Odor	Mild
Odor Threshold	N/A
pH	N/A
Melting Point/Range	No Information Available
Boiling Point/Range	No Information Available
Flash Point	No Information Available
Evaporation Rate	No Information Available
Flammability (solid,gas)	No Information Available
Flammability/explosive limits	No Information Available
Upper	No Information Available
Lower	No Information Available
Vapor Pressure	No Information Available
Vapor Density	No Information Available
Specific Gravity	No Information Available
Solubility	No Information Available
Partition coefficient; n-octanol/water	No Information Available
Autoignition Temperature	No Information Available
Decomposition Temperature	No Information Available
Viscosity	No Information Available

Magnesium Choloride

Physical State	Powder
Appearance	White
Odor	Odorless
Odor Threshold	N/A
pH	Not determined
Melting Point/Range	117°C
Boiling Point/Range	No data available
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid,gas)	Non-flammable
Flammability/explosive limits	
Upper	
Lower	
Vapor Pressure	No data available
Vapor Density	No data available

Specific Gravity	No data available
Solubility	No data available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available

Magnesium Nitrate

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	N/A
pH	5.0-8.2
Melting Point/Range° C	89° C
Boiling Point/Range	330° C
Flash Point	93.3° C (closed cup)
Evaporation Rate	No data available
Flammability (solid,gas)	Non-flammable
Flammability/explosive limits	
Upper	
Lower	
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	1.46
Solubility	soluble
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	93.3° C
Viscosity	No data available

Polysorbate 20

Physical State	Liquid
Appearance	Clear/yellowish
Odor	none
Odor Threshold	N/A
pH	No data available
Melting Point/Range	No data available
Boiling Point/Range	No data available
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid,gas)	Non-flammabe
Flammability/explosive limits	
Upper	
Lower	
Vapor Pressure	No data available
Vapor Density	No data available

Specific Gravity	No data available
Solubility	soluble
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available

Tris hydrochloride

Physical State	liquid
Appearance	No data available
Odor	No data available
Odor Threshold	No data available
pH	No data available
Melting Point/Range	No data available
Boiling Point/Range	No data available
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid,gas)	Non-flammable
Flammability/explosive limits	
Upper	
Lower	
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	No data available
Solubility	No data available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available

Trizma base

Physical State	Crystalline
Appearance	Colorless/white
Odor	No data available
Odor Threshold	
pH	10.5 - 12
Melting Point/Range	169 °C
Boiling Point/Range	288 °C (550 °F) at 1,013 hPa (760 mmHg)
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid,gas)	No data available
Flammability/explosive limits	No data available
Upper	
Lower	

Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	
Solubility	Water soluble 678 g/l at 20 °C
Partition coefficient; n-octanol/water	log Pow: -2.31 at 20 °C
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available

5-chloro-2-methyl-4-isothiazolin-3-one, 2 methyl-4-isothiazolin-3-one (3:1)

Physical State	powder
Appearance	white
Odor	none
Odor Threshold	N/A
pH	4.4
Melting Point/Range	Not determined
Boiling Point/Range	229.00 °C Solvent
Flash Point	138.00 °C PENSKY MARTENS CLOSED CUP
Evaporation Rate	< 1 water
Flammability (solid,gas)	non-flammable
Flammability/explosive limits	
Upper	
Lower	
Vapor Pressure	0.08 hPa solvent-like
Vapor Density	0.6500
Specific Gravity	Not determined
Solubility	Fully Miscible
Partition coefficient; n-octanol/water	log Pow: 0.401 Measured log Pow: -0.486 Measured
Autoignition Temperature	Will not autoignite
Decomposition Temperature	Not determined
Dynamic Viscosity	97.800 mPa.s at 25.00 °C

10 Stability and reactivity

Reactivity

No data available

Chemical stability

All constituents stable

Possibility of hazardous reactions

Magnesium nitrate:

Tris hydrochloride: carbon dioxide carbon monoxide hydrogen chloride gas

Conditions to avoid

alkali metals bases metals oxidizing agents permanganates

Incompatible materials

strong acid and bases, oxidizers, combustible materials

Hazardous decomposition products

magnesium oxides, nitrogen oxides

11 Toxicological information

Toxicological (health) effects

See section 2.

Numerical measures of toxicity (such as acute toxicity estimates)

Magnesium nitrate
Acute oral toxicity (LD50): 5440 mg/kg [Rat].
Trizma base
Oral LD50 LD50 Oral - rat - > 5,000 mg/kg
Dermal LD50 LD50 Dermal - rat - > 5,000 mg/kg
Polysorbate20
Eye Contact: Rabbit Draize 7 days Non-irritating; Skin Contact: Rabbit Draize 72 hours Non-irritating
Human Schwartz 14 days Non-sensitizing; Acute Toxicity: Ingestion: LD50 rat > 38.9 g/kg 14 days Relatively harmless
Magnesium chloride
Oral, mouse: LD50 = 7600 mg/Kg; Oral, rat: LD50 = 8100 mg/Kg
5-chloro-2-methyl-4-isothiazolin-3-one, 2methyl-4-isothiazolin-3-one
Acute oral toxicity : LD 50Rat 550 mg/kg , Acute inhalation toxicity : LC 50 Rat: 0.649 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity : LD 50 Rat: > 5,000 mg/kg

Interactive effects

No data available

Information on the likely routes of exposure

Skin, eyes, swallowing, inhalation.

Symptoms related to the physical, chemical and toxicological characteristics

See section 2.

Delayed and immediate effects and also chronic effects from short and long term exposure

no delayed effects.

12 Ecological information

Toxicity

CMIT/MIT mixture (3:1) - a mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No 247-500-7] and 2methyl-4-isothiazolin-3-one [EC No 220-239-6] (3:1 Very toxic to aquatic life.
Trizma base:
Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia - > 980 mg/l - 48 h
Toxicity to algae EC50 - Algae - 397 mg/l - 72 h
NOEC - Algae - 100 mg/l - 72 h

Persistence and degradability

Biodegradability: Considered to be rapidly degradable. Material is not readily biodegradable.
Biodegradation: < 50 % Exposure time: 10 d

Photodegradation Atmospheric half-life: 0.38 - 1.3 d

Bioaccumulative potential

Partition coefficient: n-octanol/water(log Pow): 0.401 Measured Partition coefficient: noctanol/water(log Pow): -0.486 Measured

Mobility in soil

Potential for mobility in soil is very high (Koc between 0 and 50). Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process. Partition coefficient (Koc): 28 estimated.

13 Disposal considerations

Disposal methods

Dispose of waste according to directive 2008/98/EC, covering waste and dangerous waste. Do not send down the drain or flush down the toilet. All wastes containing the material should be properly labeled. Rinse waters resulting from spill cleanups should be discharged in an environmentally safe manner, e.g., appropriately permitted municipal or on- site wastewater treatment facility.

14 Transport information

UN Number

1760

UN Proper Shipping Name

MultiCyt® QBeads Human PlexScreen: Assay Buffers, Standard, Capture Beads, and Detection Reagent

Transport hazard class(es)

8

Packing group, if applicable

II

Environmental hazards

See section 12

15 Regulatory information

Safety, health and environmental regulations specific for the product in question

EU Regulation (EC) No. 1907/2006 (REACH):
Annex XIV - List of substances subject to authorization:

Substances of very high concern: None of the components are listed.
Annex XVII - Restrictions on the manufacture, placing on the market, and use of certain dangerous substances, mixtures, and articles: Not applicable.

16 Other information

Other information

The statements contained herein are offered for informational purposes only and are based upon technical data. IntelliCyt Corporation believes them to be accurate at the date of publication, 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 (IntelliCyt Corporation) 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 perform their own investigations to determine suitability of information and product for their particular purposes.