

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code 710110, 710111, 710113, 710114, 710257, 710258, 710259
Product Name accu-beads® +
Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Developed to confirm accurate counting procedures used for routine semen analysis.
Uses advised against Not available.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Hamilton Thorne, Inc.
100 Cummings Center, Suite 465E
Beverly, MA 01915 U.S.A.
www.hamiltonthorne.com

For further information, please contact Diarmaid Douglas Hamilton

E-mail address info@hamiltonthorne.com

1.4. Emergency telephone number

Emergency Telephone +1 978.921.2050, +1 800.323.0503

Emergency Telephone - §45 - (EC)1272/2008
Europe 112

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Health hazards

Not classified.

Physical Hazards

Not classified.

2.2. Label elements

Product identifier

Not applicable.
Contains Glycerol

2.3. Other hazards

Not available.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	EC No.	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Glycerol	200-289-5	56-81-5	<25%	No data available	No data available
Propylene Glycol USP	200-338-0	57-55-6	<15%	No data available	No data available
Latex Beads	-	NOT AVAILABLE	<1.0%	No data available	No data available
Sodium Azide	247-852-1	26628-22-8	<1.0%	Acute Tox. 2 (H300) (EUH032) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available
Polysorbate 20	-	9005-64-5	<1.0%	No data available	No data available

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice	Take a copy of the Safety Data Sheet when going for medical treatment.
Inhalation	In case of inhalation, remove to fresh air. If not breathing, provide artificial respiration. If breathing is difficult, administer oxygen. Seek medical attention immediately.
Skin Contact	In case of contact, remove contaminated clothing. Immediately flush skin with copious amounts of water for at least 15 minutes. Obtain medical attention if skin reaction occurs.
Eye contact	In case of eye contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.
Ingestion	In case of accidental ingestion, wash out mouth with copious amounts of water. Seek medical attention immediately. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms Possible eye irritant.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

None known.

5.2. Special hazards arising from the substance or mixture

Not available.

Hazardous combustion products Not available.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Section 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures****Personal precautions**

Ensure adequate ventilation, especially in confined areas.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

See Section 12 for additional ecological information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

Section 7: HANDLING AND STORAGE**7.1. Precautions for safe handling****Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice.

General Hygiene Considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

7.2. Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep container tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)**Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters**Exposure Limits**

This product, as supplied, contains the following hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Glycerol 56-81-5		STEL: 30 mg/m ³ TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 50 mg/m ³ Ceiling / Peak: 100 mg/m ³
Propylene Glycol USP 57-55-6		STEL: 450 ppm STEL: 1422 mg/m ³ STEL: 30 mg/m ³ TWA: 150 ppm TWA: 474 mg/m ³ TWA: 10 mg/m ³			
Sodium Azide 26628-22-8	S* TWA 0.1 mg/m ³ STEL 0.3 mg/m ³	STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³ Skin	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³	S* STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.2 mg/m ³ Ceiling / Peak: 0.4 mg/m ³

Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Glycerol 56-81-5		TWA: 10 mg/m ³		TWA: 20 mg/m ³	
Sodium Azide 26628-22-8	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³ Skin	STEL: 0.3 mg/m ³ Ceiling: 0.29 mg/m ³ Ceiling: 0.11 ppm TWA: 0.1 mg/m ³	Skin STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³ Skin	TWA: 0.1 mg/m ³ Skin

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Glycerol 56-81-5		STEL: 100 mg/m ³ TWA: 50 mg/m ³	TWA: 10 mg/m ³		TWA: 10 mg/m ³ STEL: 30 mg/m ³
Propylene Glycol USP 57-55-6				TWA: 25 ppm TWA: 79 mg/m ³ STEL: 37.5 ppm STEL: 118.5 mg/m ³	TWA: 150 ppm TWA: 470 mg/m ³ TWA: 10 mg/m ³ STEL: 450 ppm STEL: 1410 mg/m ³ STEL: 30 mg/m ³
Sodium Azide 26628-22-8	Skin STEL 0.3 mg/m ³ TWA: 0.1 mg/m ³	STEL: 0.4 mg/m ³ TWA: 0.2 mg/m ³	STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.1 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³ Skin

Derived No Effect Level (DNEL) Not available.

Predicted No Effect Concentration (PNEC) Not available.

8.2. Exposure controls**Engineering Controls**

The health hazard risks of handling this material are dependent on factors, such as physical form and quantity. Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels as low as reasonably achievable.

**Personal protective equipment
Eye/face protection**

In laboratory, medical or industrial settings, safety glasses with side shields are recommended. The use of goggles or full face protection may be required depending on the industrial exposure setting. Contact a health and safety professional for specific information. Suitable protective clothing.

Skin and body protection

Environmental exposure controls Not available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Liquid	Odor	Not available.
Appearance	White liquid suspension	Odor threshold	Not available.
Color	Not available.		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH		Not available.
Melting point/freezing point		Not available.
Boiling point / boiling range		Not available.
Flash point		Not available.
Evaporation rate		Not available.
Flammability (solid, gas)		Not available.
Flammability Limit in Air		
Upper flammability limit:		Not available.
Lower flammability limit:		Not available.
Vapor pressure		Not available.
Vapor density		Not available.
Specific Gravity		Not available.
Water solubility		Not available.
Solubility(ies)		Not available.
Partition coefficient		Not available.
Autoignition temperature		Not available.
Decomposition temperature		Not available.
Kinematic viscosity		Not available.
Dynamic viscosity		Not available.
Explosive properties	Not available.	
Oxidizing properties	Not available.	

9.2. Other information

Softening point	Not available.
Molecular weight	Not available.
VOC Content (%)	Not available.
Density	Not available.
Bulk density	Not available.

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact	Not available.
Sensitivity to Static Discharge	None known.

10.3. Possibility of hazardous reactions

Hazardous polymerization

Hazardous polymerization does not occur.

Possibility of Hazardous Reactions

None under normal processing.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

None known based on information supplied.

10.6. Hazardous decomposition products

None under normal use conditions.

Section 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Acute toxicity Not available.

Product Information

Inhalation No data available.
Eye contact No data available.
Skin Contact No data available.
Ingestion No data available.

Unknown Acute Toxicity 99.36% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 15,131.00
ATEmix (dermal) 12,945.00
ATEmix (inhalation-dust/mist) 0.15

Component Information

Chemical Name	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀	Intravenous LD ₅₀
Glycerol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m ³ (Rat) 1 h	-
Propylene Glycol USP	= 20000 mg/kg (Rat)	= 20800 mg/kg (Rabbit)	-	-
Sodium Azide	= 27 mg/kg (Rat)	= 50 mg/kg (Rat) = 20 mg/kg (Rabbit)	-	-
Polysorbate 20	= 36700 µL/kg (Rat)	-	-	-

Skin corrosion/irritation Not available.

Serious eye damage/eye irritation Not available.

Sensitization Not available.

Germ cell mutagenicity Not available.

Carcinogenicity Not available.

Reproductive toxicity Not available.

Developmental Toxicity Not available.

Teratogenicity Not available.

STOT - single exposure	Not available.
STOT - repeated exposure	Not available.
Chronic toxicity	Not available.
Target Organ Effects	Not available.
Aspiration hazard	Not available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

67.75% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Glycerol		51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static	500: 24 h Daphnia magna mg/L EC50
Propylene Glycol USP	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50	1000: 48 h Daphnia magna mg/L EC50 Static 10000: 24 h Daphnia magna mg/L EC50
Sodium Azide		0.8: 96 h Oncorhynchus mykiss mg/L LC50 0.7: 96 h Lepomis macrochirus mg/L LC50 5.46: 96 h Pimephales promelas mg/L LC50 flow-through	

12.2. Persistence and degradability

Not available.

12.3. Bioaccumulative potential

Not available.

Chemical Name	Partition coefficient
Glycerol	-1.76

12.4. Mobility in soil

Mobility in soil
Not available.

Mobility
Not available.

12.5. Results of PBT and vPvB assessment

Not available.

12.6. Other adverse effects

Not available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14: TRANSPORT INFORMATION**IMDG**

14.1 UN/ID No.	Not available.
14.2 Proper shipping name	Not available.
14.3 Hazard Class	Not available.
14.4 Packing Group	Not available.
14.5 Marine pollutant	Not available
14.6 Special Provisions	Unknown
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.

RID

14.1 UN/ID No.	Not available.
14.2 Proper shipping name	Not available.
14.3 Hazard Class	Not available.
14.4 Packing Group	Not available.
14.5 Environmental hazard	Not available
14.6 Special Provisions	Unknown

ADR

14.1 UN/ID No.	Not available.
14.2 Proper shipping name	Not available.
14.3 Hazard Class	Not available.
14.4 Packing Group	Not available.
14.5 Environmental hazard	Not available
14.6 Special Provisions	Unknown

ICAO (air)

14.1 UN/ID No.	Not available.
14.2 Proper shipping name	Not available.
14.3 Hazard Class	Not available.
14.4 Packing Group	Not available.
14.5 Environmental hazard	Not available
14.6 Special Provisions	Unknown

IATA

14.1 UN/ID No.	Not available.
14.2 Proper shipping name	Not available.
14.3 Hazard Class	Not available.
14.4 Packing Group	Not available.
14.5 Environmental hazard	Not available
14.6 Special Provisions	Unknown

Section 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Chemical Name	French RG number	Title
Propylene Glycol USP 57-55-6	RG 84	

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

TSCA	Does not comply
DSL/NDL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Not available.

Section 16: OTHER INFORMATION

Issue Date	29-Mar-2016
Revision Date	29-Mar-2016
Revision Note	Not available.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

Hamilton Thorne, Inc. considers that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. The information contained herein is designated only as guidance for safe handling, storage and use of the product and is not a specification nor does it guarantee any specific properties. Only competent personnel, within a controlled environment should handle all chemicals. Hamilton Thorne, Inc. not be held liable for any loss, injury or damage from contact with the product.

End of Safety Data Sheet