



Safety Data Sheet #: 80-INSRTU-E01

Revision: 1.1 Last Revised: 26APR24

Product # 80-INSRTU-E01

Product Name: Rat Ultrasensitive Insulin ELISA

The following kit components are classified as not dangerous according to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS 2015), and CLP (EC) No 1272/2008:

Component Number	Component Name
900-MPMI-02	Insulin Microplate
900-CRIU-02	Conjugate Stock
900-TMB-01	TMB Substrate
900-CTLM(1-3)	Mammalian Insulin Control Level 1-3

Hazards classification information for the components below are included in this SDS:

Component Number	Component Name	Page
Standards, (Zero, Standard A – E)	900-S0MI-02, 900-37S(A-G)-02	2
Conjugate Buffer	900-CBRI-01	8
Wash Buffer Concentrate	900-WBM-01	14
Stop Solution	900-STM-01	20



Standards Safety Data Sheet

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

Product Form: Mixture
Product Name and Codes: Standards (900-S0MI-02, 900-37S(A-G)-02)

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Uses: For in vitro laboratory use. For professional use only.

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer's Name: ALPCO
Address: 26-G Keewaydin Drive Salem, NH, US, 03079
Information Phone Number: 800-592-5726 Ext. 232
Fax: 603-898-6854

1.4 Emergency Telephone Number

Emergency Phone: ChemTrec 24 hours: 800-424-9300 or 703-527-3887

SECTION 2: Hazard Identification

2.1 Classification of the Substance or Mixture

Classification

Skin Sensitizer – Category 1
Skin Irritant - Category 2
Eye Irritant - Category 2
Acute Toxicity - Category 4

These classifications were evaluated according to United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and to Regulation (EC) No 1272/2008.

2.2 Label Elements

Pictograms



Signal Word

Warning

Hazardous Statements - Health

H302 – Harmful if swallowed
H316 - Causes mild skin irritation
H317 - May cause an allergic skin reaction

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

Precautionary Statements - Prevention

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

Precautionary Statements - Response

P302 + P352 - IF ON SKIN: Wash with plenty of water
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a POISON CENTER/doctor if you feel unwell.

Precautionary Statements - Storage

No precautionary statement available.

Precautionary Statements - Disposal

P501 - Dispose of contents/container in accordance with local/national/international regulations.

2.3 Other Hazards

No additional information available.

SECTION 3: Composition/Information on Ingredients

3.1 Substances

Not Applicable

3.2 Mixtures

CAS	EC No	Chemical Name	% By Weight in Mixture	Classification according to (EC) No 1272/2008 (based on concentration present in mixture)	(EC) 1272/2008 Annex I Generic Cut-Off Limits	Specific Concentration Limit (SCL)
0009048-46-8	232-936-2	Albumins, Blood Serum	1% - 5%	Acute Toxicity Category 4	≥1%	No Data Available
0055965-84-9	932-593-5	2-Methyl-1,2-Thiazol-3(2H)-one-5-chloro-2-methyl-1,2-thiazol-3(2H)-one (1:1)	<0.3%	Skin Sensitizer Category 1 Skin Irritant Category 2 Eye Irritant Category 2	≥0.1% ≥1% ≥1%	Skin Sens. 1: C≥0.0015% Skin Irrit. 2 0.06≤C≤0.6% Eye Irrit. 2 0.06≤C≤0.6%

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

First Aid Measures After Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

Call a POISON CENTER/doctor if you feel unwell.

First Aid Measures After Skin Contact

Rinse with lukewarm, gently flowing water for 5 minutes or until product is removed.

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts).

If skin irritation or a rash occurs: Get medical advice/attention.

Wash contaminated clothing before re-use or discard.

First Aid Measures After Eye Contact

If eye irritation persists: Get medical advice/attention.

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open.

Remove contact lenses, if present and easy to do.

Take care not to rinse contaminated water into the unaffected eye or onto the face.

First Aid Measure After Ingestion

Rinse mouth.

If you feel unwell/If concerned: Call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation: May cause irritation of the respiratory tract.

Symptoms/effects after skin contact: May cause irritation. Repeated Exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/effects after ingestion: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5: Fire-fighting Measures

5.1 Extinguishing Media

Small Fire: Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire: Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

5.2 Special Hazards Arising from the Substance or Mixture

Products of combustion may produce, but not limited to oxides of carbon. Runoff may pollute waterways

5.3 Advice for Fire Fighters

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency Procedure

Isolate hazard area and keep unauthorized personnel away. Stay uphill and/or upstream. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Recommended Equipment

Wear chemical protective clothing.

Personal Precautions

Avoid breathing vapor or mist. Avoid contact with skin, eye, or clothing.

6.2 Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

6.3 Methods and Materials for Containment and Cleaning up

Absorb Liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal. Ventilate area after clean-up is complete.

6.4 Reference to Other Sections

For further information refer to section 8 "Exposure Controls/Personal Protection"

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

General

Wear appropriate personal protective equipment (PPE). Wash hands after use. Avoid breathing vapor or mist. Use good personal hygiene practices. Eating, drinking, and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. All containers must be properly labelled. Eyewash stations and showers should be available in areas where this material is used and stored. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage Room Requirements

Store in a cool, dry, well-ventilated area, away from sources of ignition and incompatibilities. Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage. Indoor storage should meet OSHA standards and appropriate fire codes. Empty containers retain residue and may be dangerous.

7.3 Specific End Uses

For in vitro laboratory use. For professional use only

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

This product, as supplied, does not contain hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

8.2 Exposure Controls

Eye protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene, or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection

Not required under normal use.

Appropriate Engineering Controls

Showers
Eyewash stations
Ventilation Systems

None of None of the chemicals in Section 3 are regulated under "ACGIH_carcinogen", "ACGIH_Notations", "ACGIH_TLV_Basis", "ACGIHsmg", "ACGIHsppm", "ACGIHtmg", "ACGIHtppm", "CAN_AL_Carcinogen", "CAN_AL_Notation", "CAN_ALsmg", "CAN_ALsppm", "CAN_ALtmg", "CAN_ALtppm", "CAN_ONsmg", "CAN_ONsppm", "CAN_ONtmg", "CAN_ONtppm", "CAN_QCVECDmg - CANADA_QUEBEC_VALEUR D'EXPOSITION DE COURTE DURÉE_mg", "CAN_QCVECDppm - CANADA_QUEBEC_VALEUR D'EXPOSITION DE COURTE DURÉE_ppm", "CAN_QCVEMPmg - CANADA_QUEBEC_VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_mg", "CAN_QCVEMPppm - CANADA_QUEBEC_VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_ppm", "CANsmg", "CANsppm", "CANTmg", "CANTppm", "NIOSH_carcinogen", "nioshsmg", "nioshsppm", "nioshtmg", "nioshtppm", "OSHA_SkinDesignation", "OSHA_Tables_Z1_Z2_Z3", "OSHA_Carcinogen - OSHA_Carcinogen", "OSHAsmg", "OSHA_sppm", "OSHAtmg", "OSHAtppm"

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Density	1.0 g/mL
Specific Gravity	1.0
% VOC	No Data Available.
Density VOC	No Data Available.
% HAPS	No Data Available.
Density HAPS	No Data Available.
% VHAPS	No Data Available.
Density VHAPS	No Data Available.
% Solids By Weight	No Data Available.

Appearance	Yellow Liquid
Odor Threshold	N/A
Odor Description	Odorless to Weak Odor
pH	No Data Available
Water Solubility	Soluble
Flammability	No Data Available.
Flash Point Symbol	No Data Available.
Flash Point	No Data Available.
Viscosity	No Data Available.
Lower Explosion Level	No Data Available.
Upper Explosion Level	No Data Available.
Vapor Pressure	No Data Available.
Vapor Density	No Data Available.
Freezing Point	No Data Available.
Melting Point	No Data Available.
Low Boiling Point	No Data Available.
High Boiling Point	No Data Available.
Auto Ignition Temp	No Data Available.
Decomposition Pt	No Data Available.
Evaporation Rate	No Data Available.
Coefficient Water/Oil	No Data Available.

9.2 Other Information

No additional information available.

SECTION 10: Stability and Reactivity

10.1 Reactivity

No dangerous reactions known under normal conditions of use.

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of Hazardous Reactions

Hazardous Reactions/Polymerization

None known to occur.

10.4 Conditions to Avoid

Heat. Incompatible materials.

10.5 Incompatible Materials

Strong bases, acids, and oxidizing agents.

10.6 Hazardous Decomposition Products

Oxides of carbon.

SECTION 11: Toxicological Information

11.1 Information on Hazard Classes

Acute Toxicity

May be harmful in contact with skin

May be harmful if swallowed

The Acute Toxicity Estimate (ATE) for an oral exposure to this mixture is > 5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for a dermal exposure to this mixture is > 20,000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for an inhalation (vapor) exposure to this mixture is >20 mg/l

Aspiration Hazard

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation

Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

11.2 Information on Other Hazards

No additional information available.

SECTION 12: Ecological Information

12.1 Toxicity

Based on available data, the classification criteria are not met.

12.2 Persistence and Degradability

No data available.

12.3 Bioaccumulative Potential

No data available.

12.4 Mobility in Soil

No data available.

12.5 Results of PBT and vPvB Assessment

No data available.

12.6 Endocrine Disrupting Properties

No data available.

12.7 Other Adverse Effects

No data available.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

SECTION 14: Transportation Information

	U.S. DOT Information	IMDG Information	IATA Information	Canada TDG Information	ADR	ADN	RID
14.1 UN Number:	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
14.2 Proper shipping name:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.3 Hazard Class:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.4 Packing Group:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.5 Environmental Hazards	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.6 Special Precautions for User:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.7 Maritime Transport in Bulk According to IMO Instruments:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

SECTION 15: Regulatory Information

15.1 Safety, Health, and Environmental Regulations/legislation Specific for the Substance or Mixture

CAS	Chemical Name	% By Weight	Regulation List
0055965-84-9	2-Methyl-1,2-thiazol-3(2H)-one - 5-chloro-2-methyl-1,2-thiazol-3(2H)-one (1:1)	<0.3%	DSL,SARA312

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

US State Regulation

California Proposition 65 – This product does not contain any substances known to the State of California to cause cancer, developmental and/or reproductive harm.

SECTION 16: Other Information

Glossary

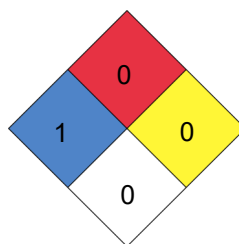
ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL- Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

HMIS

1
0
0
0

Personal Protection
(*) - Chronic effects

NFPA



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The above information pertains to this product as currently formulated and is based on information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.



Conjugate Buffer Safety Data Sheet

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

Product Form: Mixture
Product Name and Codes: Conjugate Buffer (900-CBRI-01)

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Uses: For in vitro laboratory use. For professional use only.

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer's Name: ALPCO
Address: 26-G Keewaydin Drive Salem, NH, US, 03079
Information Phone Number: 800-592-5726 Ext. 232
Fax: 603-898-6854

1.4 Emergency Telephone Number

Emergency Phone: ChemTrec 24 hours: 800-424-9300 or 703-527-3887

SECTION 2: Hazard Identification

2.1 Classification of the Substance or Mixture

Classification

Skin Sensitizer – Category 1
Skin Irritant - Category 2
Eye Irritant - Category 2
Acute Toxicity - Category 4

These classifications were evaluated according to United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and to Regulation (EC) No 1272/2008.

2.2 Label Elements

Pictograms



Signal Word

Warning

Hazardous Statements - Health

H302 – Harmful if swallowed
H316 - Causes mild skin irritation
H317 - May cause an allergic skin reaction

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

Precautionary Statements - Prevention

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

Precautionary Statements - Response

P302 + P352 - IF ON SKIN: Wash with plenty of water
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a POISON CENTER/doctor if you feel unwell.

Precautionary Statements - Storage

No precautionary statement available.

Precautionary Statements - Disposal

P501 - Dispose of contents/container in accordance with local/national/international regulations.

2.3 Other Hazards

No additional information available.

SECTION 3: Composition/Information on Ingredients

3.1 Substances

Not Applicable

3.2 Mixtures

CAS	EC No	Chemical Name	% By Weight in Mixture	Classification according to (EC) No 1272/2008 (based on concentration present in mixture)	(EC) 1272/2008 Annex I Generic Cut-Off Limits	Specific Concentration Limit (SCL)
0009048-46-8	232-936-2	Albumins, Blood Serum	1% - 5%	Acute Toxicity Category 4	≥1%	No Data Available
0055965-84-9	932-593-5	2-Methyl-1,2-Thiazol-3(2H)-one-5-chloro-2-methyl-1,2-thiazol-3(2H)-one (1:1)	<0.3%	Skin Sensitizer Category 1 Skin Irritant Category 2 Eye Irritant Category 2	≥0.1% ≥1% ≥1%	Skin Sens. 1: C≥0.0015% Skin Irrit. 2 0.06≤C≤0.6% Eye Irrit. 2 0.06≤C≤0.6%
56-81-5	200-289-5	Glycerol	7-13%	Eye Irritant Category 2	≥3%	No Data Available

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

First Aid Measures After Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

Call a POISON CENTER/doctor if you feel unwell.

First Aid Measures After Skin Contact

Rinse with lukewarm, gently flowing water for 5 minutes or until product is removed.

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts).

If skin irritation or a rash occurs: Get medical advice/attention.

Wash contaminated clothing before re-use or discard.

First Aid Measures After Eye Contact

If eye irritation persists: Get medical advice/attention.

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open.

Remove contact lenses, if present and easy to do.

Take care not to rinse contaminated water into the unaffected eye or onto the face.

First Aid Measure After Ingestion

Rinse mouth.

If you feel unwell/If concerned: Call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation: May cause irritation of the respiratory tract.

Symptoms/effects after skin contact: May cause irritation. Repeated Exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/effects after ingestion: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5: Fire-fighting Measures

5.1 Extinguishing Media

Small Fire: Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire: Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

5.2 Special Hazards Arising from the Substance or Mixture

Products of combustion may produce, but not limited to oxides of carbon. Runoff may pollute waterways

5.3 Advice for Fire Fighters

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency Procedure

Isolate hazard area and keep unauthorized personnel away. Stay uphill and/or upstream. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Recommended Equipment

Wear chemical protective clothing.

Personal Precautions

Avoid breathing vapor or mist. Avoid contact with skin, eye, or clothing.

6.2 Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

6.3 Methods and Materials for Containment and Cleaning up

Absorb Liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal. Ventilate area after clean-up is complete.

6.4 Reference to Other Sections

For further information refer to section 8 "Exposure Controls/Personal Protection"

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

General

Wear appropriate personal protective equipment (PPE). Wash hands after use. Avoid breathing vapor or mist. Use good personal hygiene practices. Eating, drinking, and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. All containers must be properly labelled. Eyewash stations and showers should be available in areas where this material is used and stored. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage Room Requirements

Store in a cool, dry, well-ventilated area, away from sources of ignition and incompatibilities. Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage. Indoor storage should meet OSHA standards and appropriate fire codes. Empty containers retain residue and may be dangerous.

7.3 Specific End Uses

For in vitro laboratory use. For professional use only

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

This product, as supplied, does not contain hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

8.2 Exposure Controls

Eye protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene, or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection

Not required under normal use.

Appropriate Engineering Controls

Showers
Eyewash stations
Ventilation Systems

None of None of the chemicals in Section 3 are regulated under "ACGIH_carcinogen", "ACGIH_Notations", "ACGIH_TLV_Basis", "ACGIHsmg", "ACGIHsppm", "ACGIHtmg", "ACGIHtppm", "CAN_AL_Carcinogen", "CAN_AL_Notation", "CAN_ALsmg", "CAN_ALsppm", "CAN_ALtmg", "CAN_ALtppm", "CAN_ONsmg", "CAN_ONsppm", "CAN_ONtmg", "CAN_ONtppm", "CAN_QCVECDmg - CANADA_QUEBEC_VALEUR D'EXPOSITION DE COURTE DURÉE_mg", "CAN_QCVECDppm - CANADA_QUEBEC_VALEUR D'EXPOSITION DE COURTE DURÉE_ppm", "CAN_QCVEMPmg - CANADA_QUEBEC_VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_mg", "CAN_QCVEMPppm - CANADA_QUEBEC_VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_ppm", "CANsmg", "CANsppm", "CANTmg", "CANTppm", "NIOSH_carcinogen", "nioshsmsg", "nioshsppm", "nioshtmg", "nioshtppm", "OSHA_SkinDesignation", "OSHA_Tables_Z1_Z2_Z3", "OSHA_Carcinogen - OSHA_Carcinogen", "OSHAsmg", "OSHA_sppm", "OSHAtmg", "OSHA_tppm"

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Density	1.0 g/mL
Specific Gravity	1.0
% VOC	No Data Available.
Density VOC	No Data Available.
% HAPS	No Data Available.
Density HAPS	No Data Available.
% VHAPS	No Data Available.
Density VHAPS	No Data Available.
% Solids By Weight	No Data Available.

Appearance	Clear Liquid
Odor Threshold	N/A
Odor Description	Odorless to Weak Odor
pH	6.9 -7.1
Water Solubility	Soluble
Flammability	No Data Available.
Flash Point Symbol	No Data Available.
Flash Point	No Data Available.
Viscosity	No Data Available.
Lower Explosion Level	No Data Available.
Upper Explosion Level	No Data Available.
Vapor Pressure	No Data Available.
Vapor Density	No Data Available.
Freezing Point	No Data Available.
Melting Point	No Data Available.
Low Boiling Point	No Data Available.
High Boiling Point	No Data Available.
Auto Ignition Temp	No Data Available.
Decomposition Pt	No Data Available.
Evaporation Rate	No Data Available.
Coefficient Water/Oil	No Data Available.

9.2 Other Information

No additional information available.

SECTION 10: Stability and Reactivity

10.1 Reactivity

No dangerous reactions known under normal conditions of use.

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of Hazardous Reactions

Hazardous Reactions/Polymerization

None known to occur.

10.4 Conditions to Avoid

Heat. Incompatible materials.

10.5 Incompatible Materials

Strong bases, acids, and oxidizing agents.

10.6 Hazardous Decomposition Products

Oxides of carbon.

SECTION 11: Toxicological Information

11.1 Information on Hazard Classes

Acute Toxicity

May be harmful in contact with skin

May be harmful if swallowed

The Acute Toxicity Estimate (ATE) for an oral exposure to this mixture is > 5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for a dermal exposure to this mixture is > 20,000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for an inhalation (vapor) exposure to this mixture is >20 mg/l

Aspiration Hazard

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation

Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

11.2 Information on Other Hazards

No additional information available.

SECTION 12: Ecological Information

12.1 Toxicity

Based on available data, the classification criteria are not met.

12.2 Persistence and Degradability

No data available.

12.3 Bioaccumulative Potential

No data available.

12.4 Mobility in Soil

No data available.

12.5 Results of PBT and vPvB Assessment

No data available.

12.6 Endocrine Disrupting Properties

No data available.

12.7 Other Adverse Effects

No data available.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

SECTION 14: Transportation Information

	U.S. DOT Information	IMDG Information	IATA Information	Canada TDG Information	ADR	ADN	RID
14.1 UN Number:	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
14.2 Proper shipping name:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.3 Hazard Class:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.4 Packing Group:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.5 Environmental Hazards	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.6 Special Precautions for User:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.7 Maritime Transport in Bulk According to IMO Instruments:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

SECTION 15: Regulatory Information

15.1 Safety, Health, and Environmental Regulations/legislation Specific for the Substance or Mixture

CAS	Chemical Name	% By Weight	Regulation List
0055965-84-9	2-Methyl-1,2-thiazol-3(2H)-one - 5-chloro-2-methyl-1,2-thiazol-3(2H)-one (1:1)	<0.3%	DSL, SARA312
56-81-5	Glycerol	7 – 13 %	SARA 311/312

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

US State Regulation

California Proposition 65 – This product does not contain any substances known to the State of California to cause cancer, developmental and/or reproductive harm.

SECTION 16: Other Information

Glossary

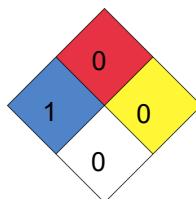
ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL - Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

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Personal Protection
(*) - Chronic effects

NFPA



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The above information pertains to this product as currently formulated and is based on information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.



Wash Buffer Safety Data Sheet

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

Product Form: Mixture
Product Name & Codes: Wash Buffer (900-WBM-01)

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Uses: For in vitro laboratory use. For professional use only.

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer's Name: ALPCO
Address: 26-G Keewaydin Drive Salem, NH, US, 03079
Information Phone Number: 800-592-5726 Ext. 232
Fax: 603-898-6854

1.4 Emergency Telephone Number

Emergency Phone: ChemTrec 24 hours: 800-424-9300 or 703-527-3887

SECTION 2: Hazard Identification

2.1 Classification of the Substance or Mixture

Classification

Skin Sensitizer – Category 1

Skin Irritant - Category 2

Eye Irritant – Category 2

These classifications were evaluated according to United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS 2015), and to Regulation (EC) No 1272/2008.

2.2 Label Elements

Pictograms



Signal Word

Warning

Hazardous Statements - Health

H316 - Causes mild skin irritation

H317 - May cause an allergic skin reaction

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

Precautionary Statements - Prevention

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

Precautionary Statements - Response

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

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P312 - Call a POISON CENTER/doctor if you feel unwell.

Precautionary Statements - Storage

No precautionary statement available.

Precautionary Statements - Disposal

P501 - Dispose of contents/container in accordance with local/national/international regulations.

2.3 Other Hazards

No additional information available.

SECTION 3: Composition/Information on Ingredients

3.1 Substances

Not Applicable

3.2 Mixtures

CAS	EC No	Chemical Name	% By Weight in Mixture	Classification according to (EC) No 1272/2008 (based on concentration present in mixture)	(EC) 1272/2008 Annex I Generic Cut-Off Limits	Specific Concentration Limit (SCL)
0055965-84-9	932-593-5	2-Methyl-1,2-Thiazol-3(2H)-one-5-chloro-2-methyl-1,2-thiazol-3(2H)-one (1:1)	<0.1%	Skin Sensitizer Category 1 Skin Irritant Category 2 Eye Irritant Category 2	≥0.1% ≥1% ≥1%	Skin Sens. 1: C≥0.0015% Skin Irrit. 2 0.06≤C≤0.6% Eye Irrit. 2 0.06≤C≤0.6%

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

First Aid Measures After Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

First Aid Measures After Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation or a rash occurs: Get medical advice/attention. Wash contaminated clothing before re-use or discard.

First Aid Measures After Eye Contact

If eye irritation persists: Get medical advice/attention. Avoid direct contact. Wear chemical protective gloves, if necessary. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face..

First Aid Measure After Ingestion

Rinse mouth. If you feel unwell/If concerned: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation: May cause irritation of the respiratory tract.

Symptoms/effects after skin contact: Contains CMIT/MIT. May produce an allergic reaction. cause irritation.

Symptoms/effects after eye contact: May cause slight temporary eye irritation.

Symptoms/effects after ingestion: May cause gastrointestinal irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5: Fire-fighting Measures

5.1 Extinguishing Media

Small Fire: Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam, sand. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire: Water spray, fog, or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

5.2 Special Hazards Arising from the Substance or Mixture

No data available.

5.3 Advice for Fire Fighters

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when fighting any chemical fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency Procedure

Isolate hazard area and keep unauthorized personnel away. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Recommended Equipment

Wear chemical protective clothing.

Personal Precautions

Avoid breathing vapor or mist. Avoid contact with skin, eye, or clothing.

6.2 Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

6.3 Methods and Materials for Containment and Cleaning up

Absorb Liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal. Ventilate area after clean-up is complete.

6.4 Reference to Other Sections

For further information refer to section 8 "Exposure Controls/Personal Protection"

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

General

Use appropriate personal protective equipment (PPE). Wash hands after use. Avoid breathing vapor or mist. Use good personal hygiene practices. Eating, drinking, and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. All containers must be properly labelled. Eyewash stations and showers should be available in areas where this material is used and stored Do not get in eyes, on skin, or on clothing.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage Room Requirements

Keep the container tightly closed. Store in a dry, cool and well-ventilated place. Avoid elevated temperatures

7.3 Specific End Uses

For in vitro laboratory use. For professional use only

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

This product, as supplied, does not contain hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

8.2 Exposure Controls

Eye protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene, or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection

Not required under normal use.

Appropriate Engineering Controls

Showers
Eyewash stations
Ventilation Systems

None of the chemicals in Section 3 are regulated under "ACGIH_carcinogen", "ACGIH_Notations", "ACGIH_TLV_Basis", "ACGIHsmg", "ACGIHsppm", "ACGIHtmg", "ACGIHtppm", "CAN_AL_Carcinogen", "CAN_AL_Notation", "CAN_ALsmg", "CAN_ALsppm", "CAN_ALtmg", "CAN_ALtppm", "CAN_ONsmg", "CAN_ONsppm", "CAN_ONtmg", "CAN_ONtppm", "CAN_QCVCEDmg - CANADA_QUEBEC VALEUR D'EXPOSITION DE COURTE DURÉE_mg", "CAN_QCVCEDppm - CANADA_QUEBEC VALEUR D'EXPOSITION DE COURTE DURÉE_ppm", "CAN_QCVEMPMg - CANADA_QUEBEC VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_mg", "CAN_QCVEMPPpm - CANADA_QUEBEC VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_ppm", "CANsmg", "CANsppm", "CANTmg", "CANTppm", "NIOSH_carcinogen", "nioshsmg", "nioshsppm", "nioshtmg", "nioshtppm", "OSHA_SkinDesignation", "OSHA_Tables_Z1_Z2_Z3", "OSHA_Carcinogen - OSHA Carcinogen", "OSHAsmg", "OSHA_sppm", "OSHA_tmg", "OSHA_tppm"

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Density	1.0 g/mL
Specific Gravity	1.0
% VOC	No Data Available
Density VOC	No Data Available
% HAPS	No Data Available
Density HAPS	No Data Available
% VHAPS	No Data Available
Density VHAPS	No Data Available
% Solids By Weight	No Data Available
Appearance	Clear Liquid
Odor Threshold	No Data Available
Odor Description	Odorless to Weak Odor
pH	7.2 - 7.5
Water Solubility	Soluble
Flammability	No Data Available
Flash Point Symbol	No Data Available
Flash Point	No Data Available
Viscosity	No Data Available
Lower Explosion Level	No Data Available
Upper Explosion Level	No Data Available
Vapor Pressure	No Data Available
Vapor Density	No Data Available
Freezing Point	No Data Available
Melting Point	No Data Available
Low Boiling Point	No Data Available
High Boiling Point	No Data Available
Auto Ignition Temp	No Data Available
Decomposition Pt	No Data Available
Evaporation Rate	No Data Available
Coefficient Water/Oil	No Data Available

9.2 Other Information

No additional information available.

SECTION 10: Stability and Reactivity

10.1 Reactivity

No dangerous reactions known under normal conditions of use.

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of Hazardous Reactions

Hazardous Reactions/Polymerization

None known to occur.

10.4 Conditions to Avoid

Heat. Incompatible materials.

10.5 Incompatible Materials

Strong bases, acids, and oxidizing agents.

10.6 Hazardous Decomposition Products

Oxides of carbon, oxides of nitrogen, other toxic fumes.

SECTION 11: Toxicological Information

11.1 Information on Hazard Classes

Acute Toxicity

Mixture not classified.

Aspiration Hazard

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons

Serious Eye Damage/Irritation

Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

11.2 Information on Other Hazards

No additional information available.

SECTION 12: Ecological Information

12.1 Toxicity

Based on available data, the classification criteria are not met.

12.2 Persistence and Degradability

No data available.

12.3 Bioaccumulative Potential

No data available.

12.4 Mobility in Soil

No data available.

12.5 Results of PBT and vPvB Assessment

No data available.

12.6 Endocrine Disrupting Properties

No data available.

12.7 Other Adverse Effects

No data available.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state, and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

SECTION 14: Transportation Information

	U.S. DOT Information	IMDG Information	IATA Information	Canada TDG Information	ADR	ADN	RID
14.1 UN Number:	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
14.2 Proper shipping name:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.3 Hazard Class:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.4 Packing Group:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.5 Environmental Hazards	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.6 Special Precautions for User:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.7 Maritime Transport in Bulk According to IMO Instruments:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

SECTION 15: Regulatory Information

15.1 Safety, Health, and Environmental Regulations/Legislation Specific for the Substance or Mixture

CAS	Chemical Name	% By Weight	Regulation List
0055965-84-9	2-Methyl-1,2-thiazol-3(2H)-one - 5-chloro-2-methyl-1,2-thiazol-3(2H)-one (1:1)	<0.1 %	DSL,SARA312

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

US State Regulation

California Proposition 65 – This product does not contain any substances known to the State of California to cause cancer, developmental and/or reproductive harm.

SECTION 16: Other Information

Glossary

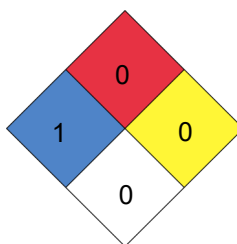
ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL - Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

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Personal Protection
(*) - Chronic effects

NFPA



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The above information pertains to this product as currently formulated and is based on information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.



Stop Solution Safety Data Sheet

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

Product Form: Mixture
Product Name and Codes: Stop Solution (900-STM-01)

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Uses: For in vitro laboratory use. For professional use only.

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer's Name: ALPCO
Address: 26-G Keewaydin Drive Salem, NH, US, 03079
Information Phone Number: 800-592-5726 Ext. 232
Fax: 603-898-6854

1.4 Emergency Telephone Number

Emergency Phone: ChemTrec 24 hours: 800-424-9300 or 703-527-3887

SECTION 2: Hazard Identification

2.1 Classification of the Substance or Mixture

Classification

Skin Sensitizer – Category 1
Skin Irritant - Category 2
Eye Irritant – Category 2
Acute Toxicity - Category 4

These classifications were evaluated according to United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and to Regulation (EC) No 1272/2008.

2.2 Label Elements

Pictograms



Signal Word

Warning

Hazardous Statements - Health

H302 – Harmful if swallowed
H315 - Causes skin irritation
H320 – Causes eye irritation.
H331 – Toxic if inhaled
H335 – May cause respiratory irritation

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

Precautionary Statements - Prevention

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

Precautionary Statements - Response

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P312 - Call a POISON CENTER/doctor if you feel unwell.

Precautionary Statements - Storage

No precautionary statement available.

Precautionary Statements - Disposal

P501 - Dispose of contents/container in accordance with local/national/international regulations.

SECTION 3: Composition/Information on Ingredients

3.1 Substances

Not Applicable.

3.2 Mixtures

CAS	EC No	Chemical Name	% By Weight in Mixture	Classification according to (EC) No 1272/2008 (based on concentration present in mixture)	(EC) 1272/2008 Annex I Generic Cut-Off Limits	Specific Concentration Limit (SCL)
110-16-7	200-664-3	Maleic Acid	1-5 %	Skin Irritant 2 Eye Irritant 2 STOT SE 3 (Respiratory) Acute Tox 4 Skin Sensitizer 1	≥1% ≥3% ≥20% ≥1% ≥0.1%	No Data Available

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

First Aid Measures After Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

Call a POISON CENTER/doctor if you feel unwell.

First Aid Measures After Skin Contact

Rinse with lukewarm, gently flowing water for 5 minutes or until product is removed.

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts).

If skin irritation or a rash occurs: Get medical advice/attention

Wash contaminated clothing before re-use or discard.

First Aid Measures After Eye Contact

If eye irritation persists: Get medical advice/attention.

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open.

Remove contact lenses, if present and easy to do.

Take care not to rinse contaminated water into the unaffected eye or onto the face.

First Aid Measure After Ingestion

Rinse mouth.

If you feel unwell/If concerned: Call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation: May cause irritation of the respiratory tract.

Symptoms/effects after skin contact: May cause irritation. Repeated Exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking, and tear production, with possible redness and swelling.

Symptoms/effects after ingestion: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5: Fire-fighting Measures

5.1 Extinguishing Media

Small Fire: Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire: Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

5.2 Special Hazards Arising from the Substance or Mixture

Fire will produce irritating gases. Runoff may pollute waterways

5.3 Advice for Fire Fighters

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency Procedure

Isolate hazard area and keep unauthorized personnel away. Stay uphill and/or upstream. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Recommended Equipment

Wear chemical protective clothing.

Personal Precautions

Avoid breathing vapor or mist. Avoid contact with skin, eye, or clothing.

6.2 Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

6.3 Methods and Materials for Containment and Cleaning up

Absorb Liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal. Ventilate area after clean-up is complete.

6.4 Reference to Other Sections

For further information refer to section 8 "Exposure Controls/Personal Protection"

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

General

Wash hands after use. Avoid breathing vapor or mist. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. All containers must be properly labelled. Eyewash stations and showers should be available in areas where this material is used and stored. Do not get in eyes, on skin, or on clothing.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage Room Requirements

Store in a cool, dry, well-ventilated area, away from sources of ignition and incompatibilities. Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage. Indoor storage should meet OSHA standards and appropriate fire codes. Empty containers retain residue and may be dangerous.

7.3 Specific End Uses

For in vitro laboratory use. For professional use only

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

This product, as supplied, does not contain hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

8.2 Exposure Controls

Eye protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene, or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection

Not required under normal use.

Appropriate Engineering Controls

Showers
Eyewash stations
Ventilation Systems

None of the chemicals in Section 3 are regulated under "ACGIH_carcinogen", "ACGIH_Notations", "ACGIH_TLV_Basis", "ACGIHsmg", "ACGIHsppm", "ACGIHtmg", "ACGIHtppm", "CAN_AL_Carcinogen", "CAN_AL_Notation", "CAN_ALsmg", "CAN_ALsppm", "CAN_ALtmg", "CAN_ALtppm", "CAN_ONsmg", "CAN_ONsppm", "CAN_ONtmg", "CAN_ONtppm", "CAN_QCVECDmg - CANADA_QUEBEC_VALEUR D'EXPOSITION DE COURTE DURÉE_mg", "CAN_QCVECDppm - CANADA_QUEBEC_VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_mg", "CAN_QCVEMPMg - CANADA_QUEBEC_VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_ppm", "CAN_QCVEMPPpm - CANADA_QUEBEC_VALEUR D'EXPOSITION MOYENNE PONDÉRÉE_ppm", "CANsmg", "CANsppm", "CANTmg", "CANTppm", "NIOSH_carcinogen", "nioshsmg", "nioshsppm", "nioshtmg", "nioshtppm", "OSHA_SkinDesignation", "OSHA_Tables_Z1_Z2_Z3", "OSHA_Carcinogen - OSHA_Carcinogen", "OSHAsmg", "OSHA_sppm", "OSHA_tmg", "OSHA_tppm"

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Density	1.0 g/mL
Specific Gravity	1.0
% VOC	No Data Available
Density VOC	No Data Available
% HAPS	No Data Available
Density HAPS	No Data Available
% VHAPS	No Data Available
Density VHAPS	No Data Available
% Solids By Weight	No Data Available

Appearance	Clear liquid
Odor Threshold	No Data Available
Odor Description	Odorless to Weak Odor
pH	Acidic
Water Solubility	Soluble
Flammability	No Data Available
Flash Point Symbol	No Data Available
Flash Point	No Data Available
Viscosity	No Data Available
Lower Explosion Level	No Data Available
Upper Explosion Level	No Data Available
Vapor Pressure	No Data Available
Vapor Density	No Data Available
Freezing Point	No Data Available
Melting Point	No Data Available
Low Boiling Point	No Data Available
High Boiling Point	No Data Available
Auto Ignition Temp	No Data Available
Decomposition Pt	No Data Available
Evaporation Rate	No Data Available
Coefficient Water/Oil	No Data Available

9.2 Other Information

No additional information available.

SECTION 10: Stability and Reactivity

10.1 Reactivity

No dangerous reactions known under normal conditions of use.

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of Hazardous Reactions

Hazardous Reactions/Polymerization

None known to occur.

10.4 Conditions to Avoid

Heat. Incompatible materials.

10.5 Incompatible Materials

Other strong oxidizing agents, acid chlorides, acid anhydrides.

10.6 Hazardous Decomposition Products

Upon evaporation of water, may emit carbon monoxide, carbon dioxide

SECTION 11: Toxicological Information

11.1 Information on Hazard Classes

Acute Toxicity

Not available for this mixture.

Aspiration Hazard

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation

Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

11.2 Information on Other Hazards

No additional information available.

SECTION 12: Ecological Information

12.1 Toxicity

Based on available data, the classification criteria are not met.

12.2 Persistence and Degradability

No data available.

12.3 Bioaccumulative Potential

No data available.

12.4 Mobility in Soil

No data available.

12.5 Results of PBT and vPvB Assessment

No data available.

12.6 Endocrine Disrupting Properties

No data available.

12.7 Other Adverse Effects

No data available.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state, and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

SECTION 14: Transportation Information

	U.S. DOT Information	IMDG Information	IATA Information	Canada TDG Information	ADR	ADN	RID
14.1 UN Number:	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
14.2 Proper shipping name:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.3 Hazard Class:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.4 Packing Group:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.5 Environmental Hazards	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.6 Special Precautions for User:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.7 Maritime Transport in Bulk According to IMO Instruments:	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

SECTION 15: Regulatory Information

15.1 Safety, Health, and Environmental Regulations/legislation Specific for the Substance or Mixture

CAS	Chemical Name	% By Weight	Regulation List
110-16-7	Maleic Acid	1-5%	DSL,SARA311/312

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

US State Regulation

California Proposition 65 – This product does not contain any substances known to the State of California to cause cancer, developmental and/or reproductive harm.

SECTION 16: Other Information

Glossary

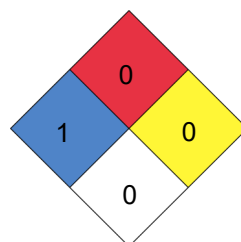
ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL - Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

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Personal Protection
(*) - Chronic effects

NFPA



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

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