

20130OX - EasySep™ 10X RBC Lysis Buffer, 30 mL

Revision Date 14-Sep-2018 Revision Number 1.1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name EasySep™ 10X RBC Lysis Buffer, 30 mL

Other means of identification

Catalog Number 20130OX

Document Number DX22883

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory reagent

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Details of the supplier of the safety data sheet

Manufacturer/Supplier

STEMCELL Technologies Canada Inc. Suite 500 - 1618 Station Street Vancouver, British Columbia V6A 1B6 Canada

Emergency telephone number

Emergency Telephone 1-800-667-0322

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)



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The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance Clear Physical state Liquid Odor No information available

Other Information

Causes mild skin irritation

Unknown acute toxicity 46.88 % of the mixture consists of ingredient(s) of unknown toxicity

2.38 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

15.63 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

46.88 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

46.88 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

15.63 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

| Chemical name | CAS No. | Weight-% |
|-------------------|------------|----------|
| Glycerol | 56-81-5 | 20 - 50 |
| Ammonium Chloride | 12125-02-9 | 1 - 10 |

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.



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Skin contact Wash skin with soap and water.

Clean mouth with water and drink afterwards plenty of water. Ingestion

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Note to physicians

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

CAUTION: Use of water spray when fighting fire may be inefficient. Unsuitable extinguishing media

Specific hazards arising from the

chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. **Personal precautions**

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

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 Pick up and transfer to properly labeled containers.



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Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-------------------|---------------------------------|--|---------------------------------|
| Glycerol | No data available | TWA: 15 mg/m³ mist, total | - |
| 56-81-5 | | particulate | |
| | | TWA: 5 mg/m³ mist, respirable | |
| | | fraction | |
| | | (vacated) TWA: 10 mg/m³ mist, | |
| | | total particulate | |
| | | (vacated) TWA: 5 mg/m ³ mist, | |
| | | respirable fraction | |
| Ammonium Chloride | STEL: 20 mg/m ³ fume | (vacated) TWA: 10 mg/m ³ | TWA: 10 mg/m ³ fume |
| 12125-02-9 | TWA: 10 mg/m³ fume | fume | STEL: 20 mg/m ³ fume |
| | | (vacated) STEL: 20 mg/m ³ | · · |
| | | fume | |

Appropriate engineering controls

Engineering controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.



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Skin and body protectionNo special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid Appearance Clear

ColorNo information availableOdorNo information availableOdor thresholdNo information available

Property Values Remarks • Method

Hq No data available None known No data available None known Melting point / freezing point No data available None known Boiling point / boiling range Flash point No data available None known No data available None known **Evaporation rate** Flammability (solid, gas) No data available None known Flammability Limit in Air None known

Upper flammability limit: No data available Lower flammability limit: No data available

No data available Vapor pressure None known No data available None known Vapor density Relative density No data available None known No data available None known Water solubility No data available Solubility in other solvents None known No data available **Partition coefficient** None known **Autoignition temperature** No data available None known **Decomposition temperature** No data available None known Kinematic viscosity No data available None known **Dynamic viscosity** No data available None known

Explosive properties

Oxidizing properties

No information available
No information available

Other Information

Softening point
Molecular weight
Molecular formula
VOC Content (%)
Liquid Density

No information available
No information available
No information available
No information available



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Bulk density No information available

10. STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoidNone known based on information supplied.

Incompatible materialsNone known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Causes mild skin irritation.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

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

ATEmix (oral) 11,966.00 mg/kg **ATEmix (dermal)** 27,025.00 mg/kg

Unknown acute toxicity 46.88 % of the mixture consists of ingredient(s) of unknown toxicity

2.38 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

15.63 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

46.88 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 46.88 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)



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15.63 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

| - 1 | | | | |
|---|---------------------|---------------------|-------------------|---------------------|
| | Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
| | Glycerol 56-81-5 | = 12600 mg/kg (Rat) | > 10 g/kg(Rabbit) | > 570 mg/m³(Rat)1 h |
| Ammonium Chloride = 1650 mg/kg (Rat) 12125-02-9 | | - | - | |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritationNo information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target organ effects kidney, Respiratory system, Eyes, Skin.

Aspiration hazard No information available. RTECS # Glycerol: MA8050000

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical name | Algae/aquatic plants | Fish | Toxicity to | Crustacea |
|-------------------|----------------------|-------------------------|----------------|----------------------|
| | | | microorganisms | |
| Glycerol | - | LC50: 51 - 57mL/L (96h, | - | EC50: >500mg/L (24h, |
| 56-81-5 | | Oncorhynchus mykiss) | | Daphnia magna) |
| Ammonium Chloride | - | LC50: =725mg/L (24h, | - | LC50: =202mg/L (24h, |
| 12125-02-9 | | Lepomis macrochirus) | | Daphnia magna) |
| | | LC50: =209mg/L (96h, | | _ |
| | | Cyprinus carpio) | | |

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.



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Component Information

| Chemical name | Partition coefficient | |
|---------------|-----------------------|--|
| Glycerol | -1.76 | |
| 56-81-5 | | |

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

products

Waste from residues/unused

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

Not regulated DOT TDG Not regulated Not regulated MEX ICAO (air) Not regulated Not regulated IATA <u>IMDG</u> Not regulated RID Not regulated ADR Not regulated Not regulated ADN

15. REGULATORY INFORMATION

International Inventories

TSCA Does not comply DSL/NDSL Does not comply



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EINECS/ELINCS

ENCS

Does not comply

Does not comply

Complies

KECL

Does not comply

PICCS Complies Complies

Legend:

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

DSL/NDSL - 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

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

| Acute health hazard | No |
|-----------------------------------|----|
| Chronic Health Hazard | No |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

| Chemical name | CWA - Reportable | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous |
|---------------------------------|------------------|------------------------|---------------------------|-----------------|
| | Quantities | | | Substances |
| Ammonium Chloride 12125-02-9 | 5000 lb | - | - | Х |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

| Chemical name | Hazardous Substances RQs | Extremely Hazardous Substances RQs |
|-------------------|--------------------------|------------------------------------|
| Ammonium Chloride | 5000 lb | - |
| 12125-02-9 | | |

US State Regulations



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California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

US State Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---------------------------------|------------|---------------|--------------|
| Water | - | - | X |
| 7732-18-5 | | | |
| Glycerol 56-81-5 | X | X | Х |
| Ammonium Chloride 12125-02-9 | X | X | X |
| Sodium Hydroxide 1310-73-2 | X | X | Х |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Prepared By, Quality Control. STEMCELL Technologies Canada Inc.

Revision Date 14-Sep-2018

Revision NoteNo information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

End of Safety Data Sheet