

# SAFETY DATA SHEET

## Muse Oxidative Stress Kit

### Section 1. Identification

**GHS product identifier** : Muse Oxidative Stress Kit

**Other means of identification** : **4700-1665** Muse Oxidative Stress Reagent  
**4700-1330** 1X Assay Buffer

**Product type** : Liquid.

**Code** :

**Identified uses** : For Professional use only. Use as per Product Insert.

**Supplier/Manufacturer** : Luminex Corporation  
 12212 Technology Blvd  
 Austin, Texas 78727  
 Tel: 1-512-381-4397  
 Toll free: 1-877-785-2323 (US and Canada)  
 Fax: 1-512-219-5114  
<http://www.luminexcorp.com>

**e-mail address of person responsible for this SDS** : Support@Luminexcorp.com

**Emergency telephone number (with hours of operation)** : 1-512-381-4397  
 24/7

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 4

**GHS label elements for the kit**

**Signal word** : Warning

**Hazard statements** : H227 - Combustible liquid.

**Precautionary statements**

**Prevention** : P280 - Wear protective gloves. Wear eye or face protection.  
 P210 - Keep away from flames and hot surfaces. - No smoking.

**Response** : Not applicable.

**Storage** : P403 - Store in a well-ventilated place.  
 P235 - Keep cool.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**GHS label elements by compartment**

**Hazard statements** : **4700-1665** H227 - Combustible liquid.  
**4700-1330** No known significant effects or critical hazards.

**Precautionary statements**

**Prevention** : **4700-1665** P280 - Wear protective gloves. Wear eye or face protection.  
 P210 - Keep away from flames and hot surfaces. - No smoking.  
**4700-1330** Not applicable.



## Section 2. Hazards identification

|   |               |  |
|---|---------------|--|
| <b>Response</b>                         | : 4700-1665   | Not applicable.  |
|   | 4700-1330     | Not applicable.  |
| <b>Storage</b>                          | : 4700-1665   | P403 - Store in a well-ventilated place.   |
|   | 4700-1330     | P235 - Keep cool.  |
|   |               | Not applicable.  |
| <b>Disposal</b>                         | : 4700-1665   | P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. |
|   | 4700-1330     | Not applicable.  |
| <b>Hazards not otherwise classified</b> | : None known. |  |

## Section 3. Composition/information on ingredients

|                                      |                  |
|--------------------------------------|------------------|
| <b>Substance/mixture</b>             | : Mixture        |
| <b>Other means of identification</b> | : Not available. |

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

|                     |                   |
|---------------------|-------------------|
| <b>Eye contact</b>  | : Not applicable. |
| <b>Inhalation</b>   | : Not applicable. |
| <b>Skin contact</b> | : Not applicable. |
| <b>Ingestion</b>    | : Not applicable. |

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

|                     |             |   |
|---------------------|-------------|---|
| <b>Eye contact</b>  | : 4700-1665 | No known significant effects or critical hazards. |
|                     | 4700-1330   | No known significant effects or critical hazards. |
| <b>Inhalation</b>   | : 4700-1665 | No known significant effects or critical hazards. |
|                     | 4700-1330   | No known significant effects or critical hazards. |
| <b>Skin contact</b> | : 4700-1665 | No known significant effects or critical hazards. |
|                     | 4700-1330   | No known significant effects or critical hazards. |
| <b>Ingestion</b>    | : 4700-1665 | No known significant effects or critical hazards. |
|                     | 4700-1330   | No known significant effects or critical hazards. |

#### Over-exposure signs/symptoms

|                     |   |
|---------------------|---|
| <b>Eye contact</b>  | : No known significant effects or critical hazards. |
| <b>Inhalation</b>   | : No known significant effects or critical hazards. |
| <b>Skin contact</b> | : No known significant effects or critical hazards. |
| <b>Ingestion</b>    | : No known significant effects or critical hazards. |

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

|                                   |                                 |
|-----------------------------------|---------------------------------|
| <b>Notes to physician</b>         | : None identified.              |
| <b>Specific treatments</b>        | : No specific treatment.        |
| <b>Protection of first-aiders</b> | : No special measures required. |

## Section 4. First aid measures

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet or water-based fire extinguishers.

**Specific hazards arising from the chemical** : Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
sulfur oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : No special requirements.

### Methods and materials for containment and cleaning up

**Spill** : Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations.  
**4700-1665:** Store at -15°C to -25°C.  
**4700-1330** Store at 2°C to 8°C.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None.

### Canada

#### Occupational exposure limits

None.

**Appropriate engineering controls** : No special ventilation requirements.

**Environmental exposure controls** : No special measures required.

### Individual protection measures

**Hygiene measures** : Follow good industrial hygiene practice.

**Eye/face protection** : Not required under normal conditions of use.

#### Skin protection

**Hand protection** : Not required under normal conditions of use.

**Body protection** : Not required under normal conditions of use.

**Other skin protection** : Not required under normal conditions of use.

**Respiratory protection** : Not required under normal conditions of use.

## Section 9. Physical and chemical properties

### Appearance

|   |                    |                            |
|---|--------------------|----------------------------|
| <b>Physical state</b>                               | : <b>4700-1665</b> | Liquid. [Clear.]           |
|   | <b>4700-1330</b>   | Liquid. [Clear.]           |
| <b>Color</b>  | : <b>4700-1665</b> | Light yellow.              |
|   | <b>4700-1330</b>   | Colorless.                 |
| <b>Odor</b>   | : <b>4700-1665</b> | No strong odor.            |
|   | <b>4700-1330</b>   | No strong odor.            |
| <b>Odor threshold</b>                               | : Not available.   |                            |
| <b>pH</b>   | : <b>4700-1665</b> | Not available.             |
|   | <b>4700-1330</b>   | Not available.             |
| <b>Melting point</b>                                | : Not available.   |                            |
| <b>Initial boiling point and boiling range</b>      | : <b>4700-1665</b> | Not available.             |
|   | <b>4700-1330</b>   | Not available.             |
| <b>Flash point</b>                                  | : <b>4700-1665</b> | Closed cup: 87°C (188.6°F) |
|   | <b>4700-1330</b>   | Not available.             |
| <b>Evaporation rate</b>                             | : Not available.   |                            |
| <b>Flammability (solid, gas)</b>                    | : Not available.   |                            |
| <b>Lower and upper explosive (flammable) limits</b> | : Not available.   |                            |

## Section 9. Physical and chemical properties

|   |                  |                |
|---|------------------|----------------|
| <b>Vapor pressure</b>                         | : 4700-1665      | Not available. |
|   | 4700-1330        | Not available. |
| <b>Vapor density</b>                          | : 4700-1665      | Not available. |
|   | 4700-1330        | Not available. |
| <b>Relative density</b>                       | : 4700-1665      | Not available. |
|   | 4700-1330        | Not available. |
| <b>Solubility</b>                             | : 4700-1665      | Not available. |
|   | 4700-1330        | Not available. |
| <b>Partition coefficient: n-octanol/water</b> | : Not available. |                |
| <b>Auto-ignition temperature</b>              | : Not available. |                |
| <b>Decomposition temperature</b>              | : Not available. |                |
| <b>Viscosity</b>                              | : 4700-1665      | Not available. |
|   | 4700-1330        | Not available. |
| <b>Flow time (ISO 2431)</b>                   | : Not available. |                |

## Section 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.   |
| <b>Chemical stability</b>                 | : 4700-1665 The product is stable.<br>4700-1330 The product is stable.   |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.  |
| <b>Conditions to avoid</b>                | : 4700-1665 Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.<br>4700-1330 No specific data. |
| <b>Incompatible materials</b>             | : 4700-1665 Reactive or incompatible with the following materials: oxidizing materials.<br>4700-1330 Reactive or incompatible with the following materials: oxidizing materials.                                   |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced.   |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

There is no data available.

#### Irritation/Corrosion

There is no data available.

#### Sensitization

There is no data available.

#### Mutagenicity

There is no data available.



## Section 11. Toxicological information

### Carcinogenicity

There is no data available.

### Reproductive toxicity

There is no data available.

### Teratogenicity

There is no data available.

### Specific target organ toxicity (single exposure)

There is no data available.

### Specific target organ toxicity (repeated exposure)

There is no data available.

### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

|                     |             |   |
|---------------------|-------------|---|
| <b>Eye contact</b>  | : 4700-1665 | No known significant effects or critical hazards. |
|                     | 4700-1330   | No known significant effects or critical hazards. |
| <b>Inhalation</b>   | : 4700-1665 | No known significant effects or critical hazards. |
|                     | 4700-1330   | No known significant effects or critical hazards. |
| <b>Skin contact</b> | : 4700-1665 | No known significant effects or critical hazards. |
|                     | 4700-1330   | No known significant effects or critical hazards. |
| <b>Ingestion</b>    | : 4700-1665 | No known significant effects or critical hazards. |
|                     | 4700-1330   | No known significant effects or critical hazards. |

### Symptoms related to the physical, chemical and toxicological characteristics

|                     |   |
|---------------------|---|
| <b>Eye contact</b>  | : No known significant effects or critical hazards. |
| <b>Inhalation</b>   | : No known significant effects or critical hazards. |
| <b>Skin contact</b> | : No known significant effects or critical hazards. |
| <b>Ingestion</b>    | : No known significant effects or critical hazards. |

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

#### Short term exposure

|                                    |   |
|------------------------------------|---|
| <b>Potential immediate effects</b> | : No known significant effects or critical hazards. |
| <b>Potential delayed effects</b>   | : No known significant effects or critical hazards. |

#### Long term exposure

|                                    |   |
|------------------------------------|---|
| <b>Potential immediate effects</b> | : No known significant effects or critical hazards. |
| <b>Potential delayed effects</b>   | : No known significant effects or critical hazards. |

### Potential chronic health effects

|                              |   |
|------------------------------|---|
| <b>General</b>               | : No known significant effects or critical hazards. |
| <b>Carcinogenicity</b>       | : No known significant effects or critical hazards. |
| <b>Mutagenicity</b>          | : No known significant effects or critical hazards. |
| <b>Teratogenicity</b>        | : No known significant effects or critical hazards. |
| <b>Developmental effects</b> | : No known significant effects or critical hazards. |

## Section 11. Toxicological information

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

There is no data available.

## Section 12. Ecological information

### Toxicity

There is no data available.

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

There is no data available.

### Mobility in soil


**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. No specific disposal consideration.

## Section 14. Transport information

|                                   | DOT Classification   | TDG Classification             | IMDG                           | IATA                           |
|-----------------------------------|--|--------------------------------|--------------------------------|--------------------------------|
| <b>UN number</b>                  | 4700-1665 NA1993   | Not regulated.                 | Not regulated.                 | Not regulated.                 |
| <b>UN proper shipping name</b>    | 4700-1665 COMBUSTIBLE LIQUID, N.O.S. (Dimethyl sulfoxide)  | -                              | -                              | -                              |
| <b>Transport hazard class(es)</b> | 4700-1665 3<br> | -                              | -                              | -                              |
| <b>Packing group</b>              | 4700-1665 III  | -                              | -                              | -                              |
| <b>Environmental hazards</b>      | 4700-1665 No.<br>4700-1330 No.   | 4700-1665 No.<br>4700-1330 No. | 4700-1665 No.<br>4700-1330 No. | 4700-1665 No.<br>4700-1330 No. |

**AERG** : 4700-1665 128

### Additional information

**DOT Classification** : 4700-1665 Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials.  
4700-1330 -



## Section 14. Transport information

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** All components are listed or exempted.  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** Not determined.  
**TSCA 12(b) one-time export:** None of the components are listed.  
**TSCA 12(b) annual export notification:** None of the components are listed.  
**Clean Water Act (CWA) 307:** None of the components are listed.  
**Clean Water Act (CWA) 311:** Disodium hydrogenorthophosphate

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : FLAMMABLE LIQUIDS - Category 4

### SARA 313

There is no data available.

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: Dimethyl sulfoxide

**Pennsylvania** : None of the components are listed.

### California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### Canadian lists

**Canada inventory (DSL NDSL)** : Not determined.

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

### International regulations





## Section 15. Regulatory information

### [Chemical Weapon Convention List Schedules I, II & III Chemicals](#)

| Ingredient name | List name | Status |
|-----------------|-----------|--------|
| Not listed.     |           |        |

## Section 16. Other information

### [Procedure used to derive the classification](#)

| Classification                                     | Justification         |
|--|-----------------------|
| <b>4700-1665</b><br>FLAMMABLE LIQUIDS - Category 4 | On basis of test data |

### [History](#)

- Date of issue mm/dd/yyyy** : 05/15/2019
- Date of previous issue** : Not applicable
- Version** : 1
- Prepared by** : KMK Regulatory Services Inc.
- Key to abbreviations** :
  - ATE = Acute Toxicity Estimate
  - BCF = Bioconcentration Factor
  - GHS = Globally Harmonized System of Classification and Labelling of Chemicals
  - IATA = International Air Transport Association
  - IBC = Intermediate Bulk Container
  - IMDG = International Maritime Dangerous Goods
  - LogPow = logarithm of the octanol/water partition coefficient
  - MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
  - UN = United Nations

### [Notice to reader](#)

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.

