

Product code	Description
<b>J2205</b>	<b>TIGIT/CD155 Blockade Bioassay 5X</b>

## Components:

J169	TIGIT Effector Cells
J180	CD155 aAPC/CHO-K1 Cells
J121A	Fetal Bovine Serum
G708A	RPMI 1640 Medium
G719A	Bio-Glo™ Luciferase Assay Buffer
G720A	Bio-Glo™ Luciferase Assay Substrate



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

**1 Identification****Product identifier****Trade name:** TIGIT Effector Cells**Article number:** J169**Application of the substance / the mixture** For Laboratory Use**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification****Classification of the substance or mixture**

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

**Label elements****GHS label elements** Not applicable**Hazard pictograms** Not applicable**Signal word** Not applicable**Hazard statements** Not applicable**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable**Target Organ(s):** Not applicable or unknown**Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: **TIGIT Effector Cells**

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### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

**Dangerous components:**

67-68-5	dimethyl sulfoxide	1-5%
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**Additional information:** For the wording of the listed risk phrases refer to section 15.

### 4 First-aid measures

**Description of first aid measures**

**General information:** No special measures required.

**After inhalation:** If the patient feels unwell or is concerned, obtain medical advice.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If the patient feels unwell or is concerned, obtain medical advice.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

**Advice for firefighters** No special advice.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Not required.

**Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

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acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: TIGIT Effector Cells

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## 7 Handling and storage

### Handling:

**Precautions for safe handling** No special measures required.

**Information about protection against explosions and fires:** The product is not flammable.

**Conditions for safe storage, including any incompatibilities**

### Storage:

**Requirements to be met by storerooms and receptacles:** Store below -65°C. Protected from light.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

### Control parameters

**Components with limit values that require monitoring at the workplace:**

67-68-5 dimethyl sulfoxide

WEEL	Long-term value: 250 ppm
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**Additional information:** The lists that were valid during the creation were used as basis.

### Exposure controls

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

**Breathing equipment:** Not required.

**Protection of hands:** Not required.

### Material of gloves

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:** Not required.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance:

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

#### Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
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Trade name: TIGIT Effector Cells

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<b>Boiling point/Boiling range:</b>	100 °C (212 °F)
<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Auto igniting:</b>	270 °C (518 °F)
<b>Decomposition temperature:</b>	Not determined.
<b>Ignition temperature:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not determined.
<b>Density:</b>	Not determined.
<b>Relative density</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Solvent separation test</b>	
<b>Organic solvents:</b>	5.0 %
<b>Water:</b>	82.6 %
<b>VOC content:</b>	5.00 %
<b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:** No data available

**Primary irritant effect:**

**on the skin:** No irritant effect.

**on the eye:** No irritating effect.

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**Trade name: TIGIT Effector Cells**

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**Sensitization:***In case of skin contact: not sensitising**In case of inhalation: not sensitising***Additional toxicological information:***The product is not subject to classification according to internally approved calculation methods for preparations:***Carcinogenic categories****IARC (International Agency for Research on Cancer)***None of the ingredients are listed.***NTP (National Toxicology Program)***None of the ingredients are listed.***OSHA-Ca (Occupational Safety & Health Administration)***None of the ingredients are listed.*

## \* 12 Ecological information

**Toxicity***Aquatic toxicity: Not harmful to the aquatic environment***Persistence and degradability***Not available**No further relevant information available.***Bioaccumulative potential***Not known**No further relevant information available.**Mobility in soil No further relevant information available.***Ecotoxicological effects:***Remark: Not available***Additional ecological information:***General notes: Not known to be hazardous to water.***Results of PBT and vPvB assessment***PBT: Not applicable.**vPvB: Not applicable.**Other adverse effects No further relevant information available.*

## \* 13 Disposal considerations

**Waste treatment methods****Recommendation:***Disposal should be in accordance with applicable regional, national and local laws and regulations.**Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.***Uncleaned packagings:***Recommendation: Disposal must be made according to official regulations.**Recommended cleansing agent: Water, if necessary with cleansing agents.*

## \* 14 Transport information

**UN-Number***Not hazardous for transportation*

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Trade name: **TIGIT Effector Cells**

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<b>DOT, ADR, IMDG, IATA</b>	Not applicable
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<b>UN proper shipping name</b>	None
<b>DOT, ADR, ADN, IMDG, IATA</b>	Not applicable

<b>Transport hazard class(es)</b>	None
<b>DOT, ADR, ADN, IMDG, IATA</b>	
<b>Class</b>	Not applicable

<b>Packing group</b>	None
<b>DOT, ADR, IMDG, IATA</b>	Not applicable

<b>Environmental hazards:</b>	
<b>Marine pollutant:</b>	No

<b>Special precautions for user</b>	Not applicable.
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<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
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<b>UN "Model Regulation":</b>	Not applicable
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## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**  
Sara

<b>Section 355 (extremely hazardous substances):</b>	
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None of the ingredients are listed.
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<b>Section 313 (Specific toxic chemical listings):</b>	
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None of the ingredients are listed.
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<b>TSCA (Toxic Substances Control Act) Inventory:</b>	
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67-68-5	dimethyl sulfoxide	ACTIVE
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<b>Hazardous Air Pollutants</b>	
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None of the ingredients are listed.
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**Proposition 65**

<b>Chemicals known to cause cancer:</b>	
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None of the ingredients are listed.
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<b>Chemicals known to cause reproductive toxicity for females:</b>	
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None of the ingredients are listed.
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<b>Chemicals known to cause reproductive toxicity for males:</b>	
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None of the ingredients are listed.
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<b>Chemicals known to cause developmental toxicity:</b>	
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None of the ingredients are listed.
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<b>New Jersey Right-to-Know List:</b>	
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67-68-5	dimethyl sulfoxide	
7558-79-4	disodium hydrogenorthophosphate	

<b>Pennsylvania Right-to-Know List:</b>	
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7558-79-4	disodium hydrogenorthophosphate	
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**Trade name: TIGIT Effector Cells**

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### Carcinogenicity categories

#### EPA (Environmental Protection Agency)

None of the ingredients are listed.

#### TLV (Threshold Limit Value)

None of the ingredients are listed.

#### NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

**GHS label elements** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**National regulations:** No information available

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

\*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### Department issuing SDS:

Promega Corporation

Chemical Regulatory Department

2800 Woods Hollow Road

Madison, WI

Ph: (608)274-4330

chemicalregulatory@promega.com

### Contact:

**Date of preparation / last revision** 01/17/2024

### Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

**1 Identification****Product identifier****Trade name:** CD155 aAPC/CHO-K1 Cells**Article number:** J180**Application of the substance / the mixture** For Laboratory Use**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification****Classification of the substance or mixture**

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

**Label elements****GHS label elements** Not applicable**Hazard pictograms** Not applicable**Signal word** Not applicable**Hazard statements** Not applicable**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable**Target Organ(s):** Not applicable or unknown**Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: CD155 aAPC/CHO-K1 Cells

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### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

**Dangerous components:**

67-68-5	dimethyl sulfoxide	1-5%
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**Additional information:** For the wording of the listed risk phrases refer to section 15.

### 4 First-aid measures

**Description of first aid measures**

**General information:** No special measures required.

**After inhalation:** If the patient feels unwell or is concerned, obtain medical advice.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If the patient feels unwell or is concerned, obtain medical advice.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

**Advice for firefighters** No special advice.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Not required.

**Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

US

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: CD155 aAPC/CHO-K1 Cells

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## 7 Handling and storage

### Handling:

**Precautions for safe handling** No special measures required.

**Information about protection against explosions and fires:** The product is not flammable.

**Conditions for safe storage, including any incompatibilities**

### Storage:

**Requirements to be met by storerooms and receptacles:** Store below -65°C. Protected from light.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

### Control parameters

**Components with limit values that require monitoring at the workplace:**

67-68-5 dimethyl sulfoxide

WEEL Long-term value: 250 ppm

**Additional information:** The lists that were valid during the creation were used as basis.

### Exposure controls

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

**Breathing equipment:** Not required.

**Protection of hands:** Not required.

### Material of gloves

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:** Not required.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance:

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

#### Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
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# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: CD155 aAPC/CHO-K1 Cells

(Contd. of page 3)

<b>Boiling point/Boiling range:</b>	100 °C (212 °F)
<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Auto igniting:</b>	270 °C (518 °F)
<b>Decomposition temperature:</b>	Not determined.
<b>Ignition temperature:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not determined.
<b>Density:</b>	Not determined.
<b>Relative density</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Solvent separation test</b>	
<b>Organic solvents:</b>	5.0 %
<b>Water:</b>	83.0 %
<b>VOC content:</b>	5.00 %
<b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:** No data available

**Primary irritant effect:**

**on the skin:** No irritant effect.

**on the eye:** No irritating effect.

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: CD155 aAPC/CHO-K1 Cells

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**Sensitization:***In case of skin contact: not sensitising**In case of inhalation: not sensitising***Additional toxicological information:***The product is not subject to classification according to internally approved calculation methods for preparations:***Carcinogenic categories****IARC (International Agency for Research on Cancer)***None of the ingredients are listed.***NTP (National Toxicology Program)***None of the ingredients are listed.***OSHA-Ca (Occupational Safety & Health Administration)***None of the ingredients are listed.*\* **12 Ecological information****Toxicity***Aquatic toxicity: Not harmful to the aquatic environment***Persistence and degradability***Not available**No further relevant information available.***Bioaccumulative potential***Not known**No further relevant information available.**Mobility in soil No further relevant information available.***Ecotoxicological effects:***Remark: Not available***Additional ecological information:***General notes: Not known to be hazardous to water.***Results of PBT and vPvB assessment***PBT: Not applicable.**vPvB: Not applicable.**Other adverse effects No further relevant information available.*\* **13 Disposal considerations****Waste treatment methods****Recommendation:***Disposal should be in accordance with applicable regional, national and local laws and regulations.**Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.***Uncleaned packagings:***Recommendation: Disposal must be made according to official regulations.**Recommended cleansing agent: Water, if necessary with cleansing agents.*

US

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# Safety Data Sheet

acc. to OSHA HCS


Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: CD155 aAPC/CHO-K1 Cells

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## 14 Transport information

<b>UN-Number</b>	UN3245
<b>DOT, ADR, IMDG, IATA</b>	
<b>UN proper shipping name</b>	None
<b>DOT, IMDG, IATA</b>	GENETICALLY MODIFIED MICROORGANISMS
<b>ADR</b>	3245 GENETICALLY MODIFIED MICROORGANISMS
<b>Transport hazard class(es)</b>	None
<b>DOT, ADR, IMDG, IATA</b>	
	
<b>Class</b>	9 Miscellaneous dangerous substances and articles
<b>Label</b>	9
<b>Packing group</b>	None
<b>DOT</b>	Not applicable
<b>Environmental hazards:</b>	
<b>Marine pollutant:</b>	No
<b>Special precautions for user</b>	Warning: Miscellaneous dangerous substances and articles
<b>Stowage Code</b>	SW7 As approved by the competent authorities of the countries involved in the shipment
<b>Segregation Code</b>	SG50 Segregation from foodstuffs as in 7.3.4.2.1, 7.6.3.1.2 or 7.7.3.6.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR</b>	
<b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
<b>IMDG</b>	
<b>Limited quantities (LQ)</b>	0
<b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
<b>UN "Model Regulation":</b>	UN 3245 GENETICALLY MODIFIED MICROORGANISMS, 9

## 15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture  
Sara

**Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

**Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

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Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: CD155 aAPC/CHO-K1 Cells

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**TSCA (Toxic Substances Control Act) Inventory:**

67-68-5	dimethyl sulfoxide	ACTIVE
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**Hazardous Air Pollutants**

None of the ingredients are listed.

**Proposition 65****Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**New Jersey Right-to-Know List:**

67-68-5	dimethyl sulfoxide
7558-79-4	disodium hydrogenorthophosphate

**Pennsylvania Right-to-Know List:**

7558-79-4	disodium hydrogenorthophosphate
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**Carcinogenicity categories****EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value)**

None of the ingredients are listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

**GHS label elements** Not applicable**Signal word** Not applicable**Hazard statements** Not applicable**National regulations:** No information available**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

\*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing SDS:**

Promega Corporation  
 Chemical Regulatory Department  
 2800 Woods Hollow Road  
 Madison, WI  
 Ph: (608)274-4330  
 chemicalregulatory@promega.com

**Contact:****Date of preparation / last revision** 01/17/2024

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**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 01/17/2024

Reviewed on 01/04/2024

**Trade name: CD155 aAPC/CHO-K1 Cells**

(Contd. of page 7)

**Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

US



## Safety Data Sheet acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/12/2024

### 1 Identification

**Product identifier**

**Trade name:** Fetal Bovine Serum

**Article number:** J121A

**CAS Number:**

1943609-65-1

**Application of the substance / the mixture** For Laboratory Use

**Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)

**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### 2 Hazard(s) identification

**Classification of the substance or mixture**

The substance is not classified as hazardous according to the Globally Harmonized System (GHS).

**Label elements**

**GHS label elements** Not applicable

**Hazard pictograms** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**Classification system:**

**NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable

**Target Organ(s):** Not applicable or unknown

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/12/2024

**Trade name: Fetal Bovine Serum**

**vPvB:** Not applicable.

(Contd. of page 1)

### 3 Composition/information on ingredients

**Chemical characterization: Substances**

**CAS No. Description**

1943609-65-1 Fetal Bovine Serum

### 4 First-aid measures

**Description of first aid measures**

**General information:** No special measures required.

**After inhalation:** If the patient feels unwell or is concerned, obtain medical advice.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If the patient feels unwell or is concerned, obtain medical advice.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

**Advice for firefighters** No special advice.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Not required.

**Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 13 for disposal information.

US

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/12/2024

Trade name: **Fetal Bovine Serum**

(Contd. of page 2)

## 7 Handling and storage

### Handling:

**Precautions for safe handling** No special measures required.

**Information about protection against explosions and fires:** The product is not flammable.

**Conditions for safe storage, including any incompatibilities**

### Storage:

**Requirements to be met by storerooms and receptacles:** Store below -65°C. Protected from light.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

### Control parameters

**Components with limit values that require monitoring at the workplace:** Not required.

**Additional information:** The lists that were valid during the creation were used as basis.

### Exposure controls

#### Personal protective equipment:

#### General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

**Breathing equipment:** Not required.

**Protection of hands:** Not required.

#### Material of gloves

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

**Eye protection:** Not required.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance:

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

**pH-value:** 6.7-8

#### Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.
<b>Flash point:</b>	Not applicable.

**Flammability (solid, gaseous):** Not applicable.

**Decomposition temperature:** Not determined.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/12/2024

Trade name: *Fetal Bovine Serum*

(Contd. of page 3)

<b>Ignition temperature:</b>	Not determined.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not determined.
<b>Density:</b>	Not determined.
<b>Relative density</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>VOC content:</b>	0.00 %
<b>Solids content:</b>	0.0 %
<b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## \* 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:** No data available

**Primary irritant effect:**

**on the skin:** No irritant effect.

**on the eye:** No irritating effect.

**Sensitization:**

**In case of skin contact:** not sensitising

**In case of inhalation:** not sensitising

**Additional toxicological information:** The substance is not subject to classification.

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

Substance is not listed.

**NTP (National Toxicology Program)**

Substance is not listed.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/12/2024

**Trade name: Fetal Bovine Serum**

(Contd. of page 4)

**OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

## 12 Ecological information

**Toxicity**

**Aquatic toxicity:** Not harmful to the aquatic environment

**Persistence and degradability**

Not available

No further relevant information available.

**Bioaccumulative potential**

Not known

No further relevant information available.

**Mobility in soil** No further relevant information available.

**Ecotoxicological effects:**

**Remark:** Not available

**Additional ecological information:**

**General notes:** Not known to be hazardous to water.

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**Other adverse effects** No further relevant information available.

## 13 Disposal considerations

**Waste treatment methods**

**Recommendation:**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

**Uncleaned packagings:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

**UN-Number** Not hazardous for transportation

**DOT, ADR, ADN, IMDG, IATA** Not applicable

**UN proper shipping name** None

**DOT, ADR, ADN, IMDG, IATA** Not applicable

**Transport hazard class(es)** None

**DOT, ADR, ADN, IMDG, IATA**

**Class** Not applicable

**Packing group** None

**DOT, ADR, IMDG, IATA** Not applicable

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/12/2024

Trade name: **Fetal Bovine Serum**

(Contd. of page 5)

**Environmental hazards:****Marine pollutant:** No**Special precautions for user** Not applicable.**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.**UN "Model Regulation":** Not applicable

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**  
Sara

**Section 355 (extremely hazardous substances):**

Substance is not listed.

**Section 313 (Specific toxic chemical listings):**

Substance is not listed.

**TSCA (Toxic Substances Control Act) Inventory:**

Substance is not listed.

**Hazardous Air Pollutants**

Substance is not listed.

**Proposition 65****Chemicals known to cause cancer:**

Substance is not listed.

**Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

**Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

**Chemicals known to cause developmental toxicity:**

Substance is not listed.

**New Jersey Right-to-Know List:**

Substance is not listed.

**Pennsylvania Right-to-Know List:**

Substance is not listed.

**Carcinogenicity categories****EPA (Environmental Protection Agency)**

Substance is not listed.

**TLV (Threshold Limit Value)**

Substance is not listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

**GHS label elements** Not applicable**Signal word** Not applicable**Hazard statements** Not applicable

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/12/2024

**Trade name: Fetal Bovine Serum**

(Contd. of page 6)

### Chemical safety assessment

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

\*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### Department issuing SDS:

Promega Corporation  
 Chemical Regulatory Department  
 2800 Woods Hollow Road  
 Madison, WI  
 Ph: (608)274-4330  
 chemicalregulatory@promega.com

### Contact:

**Date of preparation / last revision** 01/17/2024

### Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety & Health  
 TLV: Threshold Limit Value  
 PEL: Permissible Exposure Limit  
 REL: Recommended Exposure Limit

US





## Safety Data Sheet acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

### 1 Identification

**Product identifier**

**Trade name:** RPMI 1640 Medium

**Article number:** G708A

**Application of the substance / the mixture** For Laboratory Use

**Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)

**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### 2 Hazard(s) identification

**Classification of the substance or mixture**

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

**Label elements**

**GHS label elements** Not applicable

**Hazard pictograms** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**Classification system:**

**NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable

**Target Organ(s):** Not applicable or unknown

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

US

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: RPMI 1640 Medium

(Contd. of page 1)

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

**Dangerous components:** Not applicable

**Additional information:** For the wording of the listed risk phrases refer to section 15.

### 4 First-aid measures

**Description of first aid measures**

**General information:** No special measures required.

**After inhalation:** If the patient feels unwell or is concerned, obtain medical advice.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If the patient feels unwell or is concerned, obtain medical advice.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

**Advice for firefighters** No special advice.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Not required.

**Environmental precautions:** Dilute with plenty of water.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

US

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: RPMI 1640 Medium

(Contd. of page 2)

## 7 Handling and storage

### Handling:

**Precautions for safe handling** No special measures required.

**Information about protection against explosions and fires:** The product is not flammable.

**Conditions for safe storage, including any incompatibilities**

### Storage:

**Requirements to be met by storerooms and receptacles:** Store below -65°C. Protected from light.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

### Control parameters

**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.

### Exposure controls

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

**Breathing equipment:** Not required.

**Protection of hands:**

Select the glove material considering penetration time, rate of diffusion and degradation time.

**Material of gloves**

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:** Not required.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance:

<b>Form:</b>	Fluid
<b>Color:</b>	Light orange color
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

<b>pH-value at 20 °C (68 °F):</b>	7-7.4
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(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: RPMI 1640 Medium

(Contd. of page 3)

**Change in condition**

**Melting point/Melting range:** 0 °C (32 °F)  
**Boiling point/Boiling range:** 100 °C (212 °F)  
**Flash point:** Not applicable.

**Flammability (solid, gaseous):** Not applicable.  
**Decomposition temperature:** Not determined.

**Ignition temperature:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Explosion limits:**  
**Lower:** Not determined.  
**Upper:** Not determined.  
**Vapor pressure:** Not determined.

**Density at 20 °C (68 °F):** 1 g/cm<sup>3</sup> (8.345 lbs/gal)

**Relative density** Not determined.

**Vapor density** Not determined.

**Evaporation rate** Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible.

**Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**

**Dynamic at 20 °C (68 °F):** 0.0952 mPas

**Kinematic:** Not determined.

**Solvent separation test**

**Water:** 98.4 %

**VOC content:** 0.00 %

**Solids content:** 1.6 %

**Other information** No further relevant information available.

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Information on toxicological effects****Acute toxicity:**

**LD/LC50 values that are relevant for classification:** No data available

**Primary irritant effect:**

**on the skin:** No irritant effect.

**on the eye:** No irritating effect.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

**Trade name: RPMI 1640 Medium**

(Contd. of page 4)

**Sensitization:***In case of skin contact: not sensitising**In case of inhalation: not sensitising***Additional toxicological information:***The product is not subject to classification according to internally approved calculation methods for preparations:***Carcinogenic categories****IARC (International Agency for Research on Cancer)***None of the ingredients are listed.***NTP (National Toxicology Program)***None of the ingredients are listed.***OSHA-Ca (Occupational Safety & Health Administration)***None of the ingredients are listed.*

## \* 12 Ecological information

**Toxicity***Aquatic toxicity: Not harmful to the aquatic environment***Persistence and degradability***Not available**No further relevant information available.***Bioaccumulative potential***Not known**No further relevant information available.**Mobility in soil No further relevant information available.***Ecotoxicological effects:***Remark: Not available***Additional ecological information:****General notes:***Not available.**Not known to be hazardous to water.***Results of PBT and vPvB assessment***PBT: Not applicable.**vPvB: Not applicable.**Other adverse effects No further relevant information available.*

## \* 13 Disposal considerations

**Waste treatment methods****Recommendation:***Disposal should be in accordance with applicable regional, national and local laws and regulations.**Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.***Uncleaned packagings:***Recommendation: Disposal must be made according to official regulations.**Recommended cleansing agent: Water, if necessary with cleansing agents.*

US

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

Trade name: RPMI 1640 Medium

(Contd. of page 5)

## 14 Transport information

<b>UN-Number</b> <b>DOT, ADR, ADN, IMDG, IATA</b>	Not hazardous for transportation Not applicable
<b>UN proper shipping name</b> <b>DOT, ADR, ADN, IMDG, IATA</b>	None Not applicable
<b>Transport hazard class(es)</b> <b>DOT, ADR, ADN, IMDG, IATA</b> Class	None Not applicable
<b>Packing group</b> <b>DOT, ADR, IMDG, IATA</b>	None Not applicable
<b>Environmental hazards:</b> <b>Marine pollutant:</b>	No
<b>Special precautions for user</b>	Not applicable.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
<b>UN "Model Regulation":</b>	Not applicable

## 15 Regulatory information

<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b> Sara	
<b>Section 355 (extremely hazardous substances):</b> None of the ingredients are listed.	
<b>Section 313 (Specific toxic chemical listings):</b> None of the ingredients are listed.	
<b>TSCA (Toxic Substances Control Act) Inventory:</b> All components have the value ACTIVE.	
<b>Hazardous Air Pollutants</b> None of the ingredients are listed.	
<b>Proposition 65</b>	
<b>Chemicals known to cause cancer:</b> None of the ingredients are listed.	
<b>Chemicals known to cause reproductive toxicity for females:</b> None of the ingredients are listed.	
<b>Chemicals known to cause reproductive toxicity for males:</b> None of the ingredients are listed.	
<b>Chemicals known to cause developmental toxicity:</b> None of the ingredients are listed.	
<b>New Jersey Right-to-Know List:</b>	
7558-79-4	disodium hydrogenorthophosphate
<b>Pennsylvania Right-to-Know List:</b>	
7558-79-4	disodium hydrogenorthophosphate

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/04/2024

**Trade name: RPMI 1640 Medium**

(Contd. of page 6)

### Cancerogenity categories

#### EPA (Environmental Protection Agency)

None of the ingredients are listed.

#### TLV (Threshold Limit Value)

None of the ingredients are listed.

#### NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

**GHS label elements** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

**Chemical safety assessment**

**Water hazard class:** Generally not hazardous for water.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

\*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### Department issuing SDS:

Promega Corporation

Chemical Regulatory Department

2800 Woods Hollow Road

Madison, WI

Ph: (608)274-4330

chemicalregulatory@promega.com

### Contact:

**Date of preparation / last revision** 01/17/2024

### Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/01/2024

**1 Identification****Product identifier****Trade name:** Bio-Glo™ Luciferase Assay Buffer**Article number:** G719A**Application of the substance / the mixture** For Laboratory Use**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification****Classification of the substance or mixture**

GHS08 Health hazard

Carcinogenicity 2 H351 Suspected of causing cancer.

Toxic to Reproduction 2 H361 Suspected of damaging fertility or the unborn child.

**Label elements****GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).**Hazard pictograms**

GHS08

**Signal word** Warning**Hazard-determining components of labeling:**

thiourea

**Hazard statements**

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

**Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

(Contd. on page 2)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/01/2024

**Trade name: Bio-Glo™ Luciferase Assay Buffer**

(Contd. of page 1)

*Wear protective gloves/protective clothing/eye protection/face protection.*

*IF exposed or concerned: Get medical advice/attention.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Classification system:**

**NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = \*2

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):**

*Reproductive Hazard*

*Suspected Carcinogen*

**Target Organ(s):** *Not applicable or unknown*

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** *Not applicable.*

**vPvB:** *Not applicable.*

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:**

*The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.*

**Dangerous components:**

62-56-6	thiourea	<1%
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**Additional information:** *For the wording of the listed risk phrases refer to section 15.*

### 4 First-aid measures

**Description of first aid measures**

**After inhalation:** *If the patient feels unwell or is concerned, obtain medical advice.*

**After skin contact:** *Generally the product does not irritate the skin.*

**After eye contact:** *Rinse opened eye for several minutes under running water.*

**After swallowing:** *If the patient feels unwell or is concerned, obtain medical advice.*

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed**

*None*

*No further relevant information available.*

**Indication of any immediate medical attention and special treatment needed**

*No further relevant information available.*

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:**

*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*

(Contd. on page 3)

# Safety Data Sheet

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**Trade name: Bio-Glo™ Luciferase Assay Buffer**

(Contd. of page 2)

**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

**Advice for firefighters** No special advice.

## \* 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Remove persons from danger area.

Wear protective clothing.

**Environmental precautions:** Dilute with plenty of water.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to Section 13.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 13 for disposal information.

## \* 7 Handling and storage

**Handling:**

**Precautions for safe handling**

Keep receptacles tightly sealed.

Open and handle receptacle with care.

**Information about protection against explosions and fires:**

Keep respiratory protective device available.

The product is not flammable.

**Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:** Store below -65°C. Protected from light.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

**Specific end use(s)** No further relevant information available.

## \* 8 Exposure controls/personal protection

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Pregnant women should strictly avoid inhalation or skin contact.

Do not eat or drink while working.

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# Safety Data Sheet

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Reviewed on 01/01/2024

**Trade name: Bio-Glo™ Luciferase Assay Buffer**

(Contd. of page 3)

**Breathing equipment:** Not required.

**Protection of hands:**

Select the glove material considering penetration time, rate of diffusion and degradation time.

**Material of gloves**

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:**

Safety glasses

Use equipment for eye protection tested and approved under government NIOSH standards.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance:

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

**pH-value at 20 °C (68 °F):** 6.7

#### Change in condition

<b>Melting point/Melting range:</b>	0 °C (32 °F)
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)
<b>Flash point:</b>	Not applicable.

**Flammability (solid, gaseous):** Not applicable.  
**Decomposition temperature:** Not determined.

**Ignition temperature:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

#### Explosion limits:

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not determined.

**Density at 20 °C (68 °F):** 1.02 g/cm<sup>3</sup> (8.5119 lbs/gal)

**Relative density:** Not determined.

**Vapor density:** Not determined.

**Evaporation rate:** Not determined.

#### Solubility in / Miscibility with

**Water:** Fully miscible.  
**Partition coefficient (n-octanol/water):** Not determined.

#### Viscosity:

**Dynamic at 20 °C (68 °F):** 0.0952 mPas  
**Kinematic:** Not determined.

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/01/2024

**Trade name: Bio-Glo™ Luciferase Assay Buffer**

(Contd. of page 4)

### Solvent separation test

<b>Organic solvents:</b>	0.5 %
<b>Water:</b>	95.1 %
<b>VOC content:</b>	0.53 %

<b>Solids content:</b>	0.8 %
------------------------	-------

<b>Other information</b>	No further relevant information available.
--------------------------	--

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:** No data available

**Primary irritant effect:**

**on the skin:** Causes skin irritation.

**on the eye:** No data available.

**Sensitization:**

**In case of skin contact:** not sensitising

**In case of inhalation:** not sensitising

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
OECD test guideline 471, Ames test.

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

62-56-6	thiourea	3
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**NTP (National Toxicology Program)**

62-56-6	thiourea	R
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**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

## 12 Ecological information

**Toxicity**

**Aquatic toxicity:** Not harmful to the aquatic environment

**Persistence and degradability**

Not available

No further relevant information available.

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Reviewed on 01/01/2024

**Trade name: Bio-Glo™ Luciferase Assay Buffer**

(Contd. of page 5)

**Bioaccumulative potential**

Not known

No further relevant information available.

**Mobility in soil** No further relevant information available.**Ecotoxicological effects:****Remark:** Not available**Additional ecological information:****General notes:** Not available.**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects** No further relevant information available.

## \* 13 Disposal considerations

**Waste treatment methods****Recommendation:**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agent:** Water, if necessary with cleansing agents.

## \* 14 Transport information

<b>UN-Number</b>	Not hazardous for transportation
<b>DOT, ADR, ADN, IMDG, IATA</b>	Not applicable

<b>UN proper shipping name</b>	None
<b>DOT, ADR, ADN, IMDG, IATA</b>	Not applicable

<b>Transport hazard class(es)</b>	None
<b>DOT, ADR, ADN, IMDG, IATA</b>	
<b>Class</b>	Not applicable

<b>Packing group</b>	None
<b>DOT, ADR, IMDG, IATA</b>	Not applicable

<b>Environmental hazards:</b>	
<b>Marine pollutant:</b>	No

<b>Special precautions for user</b>	Not applicable.
-------------------------------------	-----------------

<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
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<b>UN "Model Regulation":</b>	Not applicable
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# Safety Data Sheet

acc. to OSHA HCS

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Trade name: **Bio-Glo™ Luciferase Assay Buffer**

(Contd. of page 6)

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Sara**

**Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

**Section 313 (Specific toxic chemical listings):**

62-56-6 thiourea

**TSCA (Toxic Substances Control Act) Inventory:**

62-56-6 thiourea

ACTIVE

**Hazardous Air Pollutants**

67-56-1 methanol

**Proposition 65**

**Chemicals known to cause cancer:**

62-56-6 thiourea

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

67-56-1 methanol

**New Jersey Right-to-Know List:**

67-68-5 dimethyl sulfoxide

62-56-6 thiourea

67-56-1 methanol

**Pennsylvania Right-to-Know List:**

62-56-6 thiourea

**Carcinogenicity categories**

**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value)**

None of the ingredients are listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**Signal word** Warning

**Hazard-determining components of labeling:**

thiourea

**Hazard statements**

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

**Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

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US

# Safety Data Sheet

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Printing date 01/17/2024

Reviewed on 01/01/2024

**Trade name: Bio-Glo™ Luciferase Assay Buffer**

(Contd. of page 7)

*IF exposed or concerned: Get medical advice/attention.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Chemical safety assessment**

**Additional classification according to Decree on Hazardous Materials:** *Can cause cancer.*

**Water hazard class:** *Generally not hazardous for water.*

**Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

## 16 Other information

*\*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**Department issuing SDS:**

Promega Corporation

Chemical Regulatory Department

2800 Woods Hollow Road

Madison, WI

Ph: (608)274-4330

chemicalregulatory@promega.com

**Contact:**

**Date of preparation / last revision** 01/17/2024

**Abbreviations and acronyms:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Carcinogenicity 2: Carcinogenicity – Category 2*

*Toxic to Reproduction 2: Reproductive toxicity – Category 2*

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/16/2024

**1 Identification****Product identifier****Trade name:** Bio-Glo™ Luciferase Assay Substrate**Article number:** G720A**Application of the substance / the mixture** For Laboratory Use**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification****Classification of the substance or mixture**

Eye Irritation 2A H319 Causes serious eye irritation.

**Label elements****GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).**Hazard pictograms**

GHS07

**Signal word** Warning**Hazard statements**

Causes serious eye irritation.

**Precautionary statements**

Wash thoroughly after handling.

Wear eye protection / face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

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US



# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/16/2024

**Trade name: Bio-Glo™ Luciferase Assay Substrate**

(Contd. of page 1)

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = \*2

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Irritant****Primary route(s) of entry:** Dermal**Target Organ(s):** Not applicable or unknown**Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

### \* 3 Composition/information on ingredients

**Chemical characterization: Mixtures****Description:**

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

**Dangerous components:**

3483-12-3 DL-Dithiothreitol

1-5%

**Additional information:** For the wording of the listed risk phrases refer to section 15.

### \* 4 First-aid measures

**Description of first aid measures****After inhalation:** If the patient feels unwell or is concerned, obtain medical advice.**After skin contact:** Generally the product does not irritate the skin.**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:** If the patient feels unwell or is concerned, obtain medical advice.**Information for doctor:****Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### \* 5 Fire-fighting measures

**Extinguishing media****Suitable extinguishing agents:**CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

(Contd. on page 3)

# Safety Data Sheet

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Reviewed on 01/16/2024

**Trade name: Bio-Glo™ Luciferase Assay Substrate**

(Contd. of page 2)

**Advice for firefighters** No special advice.

## 6 Accidental release measures

### **Personal precautions, protective equipment and emergency procedures**

Remove persons from danger area.

Avoid formation of dust.

Wear protective clothing.

**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:** Pick up mechanically.

### **Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

## 7 Handling and storage

### **Handling:**

**Precautions for safe handling** No special precautions are necessary if used correctly.

**Information about protection against explosions and fires:** The product is not flammable.

### **Conditions for safe storage, including any incompatibilities**

#### **Storage:**

**Requirements to be met by storerooms and receptacles:** Store below -65°C. Protected from light.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

### **Control parameters**

#### **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.

### **Exposure controls**

#### **Personal protective equipment:**

##### **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

**Breathing equipment:** Not required.

**Protection of hands:** Not required.

#### **Material of gloves**

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves

(Contd. on page 4)

# Safety Data Sheet

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Printing date 01/17/2024

Reviewed on 01/16/2024

**Trade name: Bio-Glo™ Luciferase Assay Substrate**

(Contd. of page 3)

with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:**

Safety glasses

Use equipment for eye protection tested and approved under government NIOSH standards.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

##### Appearance:

<b>Form:</b>	Solid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

**pH-value:** Not applicable.

#### Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.
<b>Flash point:</b>	Not applicable.

**Flammability (solid, gaseous):** Not determined.

**Decomposition temperature:** Not determined.

**Ignition temperature:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

#### Explosion limits:

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not applicable.

**Density at 20 °C (68 °F):** 1.09 g/cm<sup>3</sup> (9.09605 lbs/gal)

**Relative density** Not determined.

**Vapor density** Not applicable.

**Evaporation rate** Not applicable.

#### Solubility in / Miscibility with

<b>Water:</b>	Soluble.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.

#### Solvent separation test

**VOC content:** 0.00 %

**Solids content:** 100.0 %

**Other information** No further relevant information available.

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# Safety Data Sheet

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Reviewed on 01/16/2024

**Trade name: Bio-Glo™ Luciferase Assay Substrate**

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## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

**987-65-5 ATP disodium salt**

Oral	LD50	>2,000 mg/kg (Rat)
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**Primary irritant effect:**

**on the skin:** Causes skin irritation.

**on the eye:** Irritating effect.

**Sensitization:**

In case of skin contact: not sensitising

In case of inhalation: not sensitising

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

OECD test guideline 471, Ames test.

Irritant

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

**NTP (National Toxicology Program)**

None of the ingredients are listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

## 12 Ecological information

**Toxicity**

**Aquatic toxicity:** Not harmful to the aquatic environment

**Persistence and degradability**

Not available

No further relevant information available.

**Bioaccumulative potential**

Not known

No further relevant information available.

**Mobility in soil** No further relevant information available.

**Ecotoxicological effects:**

**Remark:** Not available

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# Safety Data Sheet

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Reviewed on 01/16/2024

**Trade name: Bio-Glo™ Luciferase Assay Substrate**

(Contd. of page 5)

**Additional ecological information:****General notes:** No data available.**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects** No further relevant information available.

## 13 Disposal considerations

**Waste treatment methods****Recommendation:**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

**UN-Number** Not hazardous for transportation**DOT, ADR, ADN, IMDG, IATA** Not applicable**UN proper shipping name** None**DOT, ADR, ADN, IMDG, IATA** Not applicable**Transport hazard class(es)** None**DOT, ADR, ADN, IMDG, IATA****Class** Not applicable**Packing group** None**DOT, ADR, IMDG, IATA** Not applicable**Environmental hazards:****Marine pollutant:** No**Special precautions for user** Not applicable.**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.**UN "Model Regulation":** Not applicable

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture****Sara****Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

**Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/16/2024

**Trade name: Bio-Glo™ Luciferase Assay Substrate**

(Contd. of page 6)

**TSCA (Toxic Substances Control Act) Inventory:**

3483-12-3	DL-Dithiothreitol	ACTIVE
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**Hazardous Air Pollutants**

None of the ingredients are listed.

**Proposition 65****Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**New Jersey Right-to-Know List:**

None of the ingredients are listed.

**Pennsylvania Right-to-Know List:**

None of the ingredients are listed.

**Carcinogenicity categories****EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value)**

None of the ingredients are listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**Signal word** Warning

**Hazard statements**

Causes serious eye irritation.

**Precautionary statements**

Wash thoroughly after handling.

Wear eye protection / face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

**Chemical safety assessment**

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

\*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing SDS:**

Promega Corporation

Chemical Regulatory Department

2800 Woods Hollow Road

Madison, WI

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/17/2024

Reviewed on 01/16/2024

**Trade name: Bio-Glo™ Luciferase Assay Substrate**

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**Contact:****Date of preparation / last revision 01/17/2024****Abbreviations and acronyms:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**OSHA: Occupational Safety & Health**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A*

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