12/29/2023	Kit Components
Product code	Description
E7120	ONE-GloTM + Tox Luciferase Reporter and Cell Viability Assay
Components:	
G610B	Assay Buffer
G608B	GF-AFC Substrate
E605B	ONE-Glo [™] Luciferase Assay Buffer
E606B	ONE-Glo [™] Luciferase Assay Substrate



Printing date 12/29/2023

Reviewed on 12/07/2023

1 Identification

Product identifier Trade name: <u>Assay Buffer</u> Article number: G610B 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

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 = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0Fire = 0Reactivity = 0OSHA 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.

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Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: Assay Buffer

(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

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: CO2, 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 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 measures required.

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

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US

Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: Assay Buffer

(Contd. of page 2)

Conditions for safe storage, including any incompatibilities Storage: Requirements to be met by storerooms and receptacles: Do not store below -20°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: 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.

Information on basic physical and General Information	chemical properties	
Appearance:		
Form:	Fluid	
Color:	Colorless	
Odor:	Odorless	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	7.5	
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.	

Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: Assay Buffer

		(Contd. of page
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):	1.007 g/cm ³ (8.40341 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/wa	ter): Not determined.	
Viscosity:	,	
Dynamic at 20 °C (68 °F):	0.0952 mPas	
Kinematic:	Not determined.	
Solvent separation test		
Water:	97.2 %	
VOC content:	0.00 %	
Solids content:	25.9 %	
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. 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:

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Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: Assay Buffer

(Contd. of page 4)

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.

	ot hazardous for transportation
	ot applicable
UN proper shipping name N DOT, ADR, ADN, IMDG, IATA N	one

Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: Assay Buffer

		(Contd. of page 5)
Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA Class	Not applicable	
Packing group DOT, ADR, IMDG, IATA	None Not applicable	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	TI of 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.

TSCA (Toxic Substances Control Act) Inventory:

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.

Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value)

None of the ingredients are listed.

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Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: Assay Buffer

(Contd. of page 6)

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** 12/29/2023 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



Printing date 12/29/2023

Reviewed on 12/07/2023

Page 1/8

1 Identification

Product identifier Trade name: <u>GF-AFC Substrate</u> Article number: G608B 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

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



Acute Toxicity - Dermal 4 H312 Harmful in contact with skin.

Flammable Liquids 4 H227 Combustible liquid.

Label elements

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



Signal word Warning

Hazard-determining components of labeling: dimethyl sulfoxide Hazard statements Combustible liquid. Harmful in contact with skin. Precautionary statements Keep away from flames and hot surfaces. – No smoking. Wear protective gloves/protective clothing/eye protection/face protection.

(Contd. on page 2)

Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: GF-AFC Substrate

	(Contd. of page 1)
If on skin: Wash with plenty of water.	
Call a poison center/doctor if you feel unwell.	
Take off contaminated clothing and wash it before reuse.	
In case of fire: Use CO2, powder or water spray to extinguish.	
Store in a well-ventilated place. Keep cool.	
Dispose of contents/container in accordance with local/regional/national/international regulations	•
Classification system:	
NFPÅ ratings (scale 0 - 4)	
Health = 2	
Fire = 2	
Reactivity = 0	
HMIS-ratings (scale 0 - 4)	
Health = 2	
Fire = 2	
Reactivity = 0	
OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Combustible	
Primary route(s) of entry: Dermal	
Target Organ(s):	
Dermal hazard (Cutaneous hazard)	
Risk of damage to eyes	
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:

67-68-5 dimethyl sulfoxide

75-100%

4 First-aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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

After skin contact: Immediately wash with water and soap and rinse thoroughly.

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.

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Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: GF-AFC Substrate

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents: Use fire fighting measures that suit the environment. Special hazards arising from the substance or mixture None known

No further relevant information available.

Advice for firefighters In the case of fire, wear respiratory protective equipment and chemical protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Remove persons from danger area.
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.
Environmental precautions:
Prevent seepage into sewage system, workpits and cellars.
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).
Dispose contaminated material as waste according to Section 13.
Ensure adequate ventilation.
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 No special precautions are necessary if used correctly. **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.

Conditions for safe storage, including any incompatibilities Storage:

Requirements to be met by storerooms and receptacles: Do not store below -20°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:

67-68-5 dimethyl sulfoxide

WEEL Long-term value: 250 ppm

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(Contd. of page 2)

US

US

Safety Data Sheet acc. to OSHA HCS

Printing date 12/29/2023

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Reviewed on 12/07/2023

Trade name: GF-AFC Substrate

	(Contd. of page 3)
Additional information: The lists that were valid during the creation were used as basis.	
Exposure controls	
Personal protective equipment:	
General protective and hygienic measures:	
Immediately remove all soiled and contaminated clothing.	
Wash hands before breaks and at the end of work.	
Avoid contact with the eyes and skin.	
Clean skin thoroughly immediately after handling the product.	
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 ar manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization specific local conditions under which the product is used such as the danger of cuts and abrasi with care to avoid skin contamination.	ut is not limited to, n effects. Consider
The selection of the suitable gloves does not only depend on the material, but also on further m varies from manufacturer to manufacturer. As the product is a preparation of several substan of the glove material can not be calculated in advance and has therefore to be checked prior to Eye protection: Safety glasses	ces, the resistance
Use equipment for eye protection tested and approved under government NIOSH standards.	

Information on basic physical and c	homical proportios	
General Information	nemicui properties	
Appearance:		
Form:	Fluid	
Color:	Colorless	
Odor:	Not determined	
Odor threshold:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	189 °C (372.2 °F)	
Flash point:	87 °C (188.6 °F)	
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 at 20 °C (68 °F):	2.5 hPa (1.9 mm Hg)	
Density at 20 °C (68 °F):	1.137 g/cm ³ (9.48827 lbs/gal)	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	

Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: GF-AFC Substrate

		(Contd. of page 4
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octand	ol/water): Not determined.	
Viscosity:	,	
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent separation test		
Organic solvents:	94.5 %	
VOC content:	94.53 %	
Solids content:	5.7 %	
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: Oxidizing agents Strong acids Strong reducing agents 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: Harmful

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.

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Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: GF-AFC Substrate

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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: 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 DOT, ADR, IMDG, IATA	Not hazardous for transportation Not applicable	
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	None Not applicable	
Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA Class	Not applicable	
Packing group DOT, ADR, IMDG, IATA	None Not applicable	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.	
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(Contd. of page 6)

ACTIVE

Safety Data Sheet acc. to OSHA HCS

Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: GF-AFC Substrate

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.

TSCA (Toxic Substances Control Act) Inventory:

67-68-5 dimethyl sulfoxide

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

Pennsylvania Right-to-Know List: None of the ingredients are listed.

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 The product is classified and labeled according to the Globally Harmonized System (GHS). **Signal word** Warning

Hazard-determining components of labeling:dimethyl sulfoxideHazard statementsCombustible liquid.Harmful in contact with skin.Precautionary statementsKeep away from flames and hot surfaces. – No smoking.Wear protective gloves/protective clothing/eye protection/face protection.

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Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: GF-AFC Substrate

(Contd. of page 7)

If on skin: Wash with plenty of water. Call a poison center/doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. In case of fire: Use CO2, powder or water spray to extinguish. Store in a well-ventilated place. Keep cool. Dispose of contents/container in accordance with local/regional/national/international regulations. **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 12/29/2023 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 Flammable Liquids 4: Flammable liquids – Category 4 Acute Toxicity - Dermal 4: Acute toxicity - Category 4



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Reviewed on 12/07/2023

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1 Identification

Product identifier Trade name: <u>ONE-GloTM</u> <u>Luciferase Assay Buffer</u> **Article number:** E605B **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

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*



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)

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Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: ONE-GloTM 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 regulation	S.
Classification system:	
NFPA ratings (scale 0 - 4)	
Health = 1	
Fire = 0	
Reactivity = 0	
HMIS-ratings (scale 0 - 4)	
Health = 1	
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

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:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

(Contd. on page 3)

US

<1%

Printing date 12/29/2023

Reviewed on 12/07/2023

Trade name: ONE-GloTM Luciferase Assay Buffer

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.
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).
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: Do not store below -20°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.

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Pregnant women should strictly avoid inhalation or skin contact.
Do not eat or drink while working.
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. **Eve 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: Form:	EL.: 1	
1 0	Fluid	
Color:	Colorless	
Odor:	Odorless	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	6.7	
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.	
<i>Density at 20 °C (68 °F):</i>	1.02 g/cm ³ (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/wat	er): Not determined.	
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Viscosity:	0.0050 B	
Dynamic at 20 °C (68 °F): Kinematic:	0.0952 mPas Not determined.	
Kinematic:	Not determined.	
Solvent separation test		
Organic solvents:	0.5 %	
Water:	95.1 %	
VOC content:	0.53 %	
Solids content:	0.8 %	
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: Causes skin irritation. on the eye: No data available. Sensitization: In case of skin contact: not sensitising 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

NTP (National Toxicology Program)

62-56-6 thiourea

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

12 Ecological information

Toxicity

Aquatic toxicity: Not harmful to the aquatic environment

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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: 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.

UN-Number DOT, ADR, IMDG, IATA	Not hazardous for transportation Not applicable	
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	None Not applicable	
Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA Class	Not applicable	
Packing group DOT, ADR, IMDG, IATA	None Not applicable	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.	
UN "Model Regulation":	Not applicable	

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Safety, health and environmental regulations/legislation specific for the substan	nce 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	ACTI
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	
Cancerogenity categories EPA (Environmental Protection Agency)	
None of the ingredients are listed.	
<i>TLV (Threshold Limit Value)</i> 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 Global Signal word Warning	ally Harmonized System (GHS
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.	

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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: 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.





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1 Identification

Product identifier Trade name: <u>ONE-GloTM Luciferase Assay Substrate</u> **Article number:** E606B **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

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 Harm

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 = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0Fire = 0Reactivity = 0OSHA 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.

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Trade name: ONE-GloTM Luciferase Assay Substrate

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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: Not applicable

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: CO2, 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.

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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: Do not store below -20°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:** 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. Eve protection: Not required.

Information on basic physical and General Information	chemical properties	
Appearance: Form:	Fluid	
Color:	Colorless	
Odor:	Not determined	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	6.7	
Change in condition		
Melting point/Melting range:	Undetermined.	

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Trade name: ONE-GloTM Luciferase Assay Substrate

		(Contd. of page
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):	1.09 g/cm³ (9.09605 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/w	nter): Not determined.	
Viscosity:	<i>`</i>	
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent separation test		
Water:	82.7 %	
VOC content:	0.00 %	
Solids content:	10.0 %	
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. Sensitization: In case of skin contact: not sensitising In case of inhalation: not sensitising

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Trade name: ONE-GloTM Luciferase Assay Substrate

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.

UN-Number	Not hazardous for transportation	
DOT, ADR, IMDG, IATA	Not applicable	
UN proper shipping name	None	

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DOT, ADR, ADN, IMDG, IATA	Not applicable	
Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA Class	Not applicable	
Packing group DOT, ADR, IMDG, IATA	None Not applicable	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of 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.

TSCA (Toxic Substances Control Act) Inventory:

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.

Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value)

None of the ingredients are listed.

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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: 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** 12/29/2023 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