<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N1130</td>
<td>Nano-Glo™ Luciferase Assay, 10x10ml</td>
</tr>
</tbody>
</table>

Components:

<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N113</td>
<td>Nano-Glo® Luciferase Assay Substrate</td>
</tr>
<tr>
<td>N112</td>
<td>Nano-Glo(R) Luciferase Assay Buffer</td>
</tr>
</tbody>
</table>
1 Identification

Product identifier
Trade name: Nano-Glo® Luciferase Assay Substrate

Article number: N113
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
Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.
1-800-356-9526 or (608)-274-4330

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

GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

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

Hazard pictograms

GHS02

Signal word Danger

Hazard statements
Highly flammable liquid and vapor.
Precautionary statements
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 
Keep container tightly closed. 
Ground/bond container and receiving equipment. 
Use explosion-proof electrical/ventilating/lighting/equipment. 
Use only non-sparking tools. 
Take precautionary measures against static discharge. 
Wear protective gloves/protective clothing/eye protection/face protection. 
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 
In case of fire: Use for extinction: CO2, powder or water spray. 
Store in a well-ventilated place. Keep cool. 
Dispose of contents/container in accordance with local/regional/national/international regulations. 
Classification system: 
NFPA ratings (scale 0 - 4)
Health = 0 
Fire = 3 
Reactivity = 0 
HMIS-ratings (scale 0 - 4)
Health = 0 
Fire = 3 
Reactivity = 0 
OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Flammable 
Primary route(s) of entry: Inhalation 
Target Organ(s):
May cause Liver damage (Hepatotoxin) 
May affect Nervous system (Neurotoxin) 
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 non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret. 

Dangerous components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 ethanol</td>
<td>75-100%</td>
</tr>
<tr>
<td>56-81-5 glycerol</td>
<td>10-15%</td>
</tr>
</tbody>
</table>

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: Immediately remove any clothing soiled by the product. 
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. 

(Contd. on page 3)
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.
- Keep away from ignition sources
- 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).
- 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
- Ensure good ventilation/exhaustion at the workplace.
- Prevent formation of aerosols.
- Use only in well ventilated areas.

Information about protection against explosions and fires:
- Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities

Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions:
- Keep receptacle tightly sealed.
Trade name: Nano-Glo® Luciferase Assay Substrate

Store in cool, dry conditions in well sealed receptacles.
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:

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 ethanol</td>
<td>Long-term value: 1900 mg/m³, 1000 ppm</td>
<td>Long-term value: 1900 mg/m³, 1000 ppm</td>
<td>Short-term value: 1880 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td>56-81-5 glycerol</td>
<td>Long-term value: 15*mg/m³, 5**mg/m³</td>
<td>mist; *total dust **respirable fraction</td>
<td>TLV withdrawn, insufficient data human occup. exp.</td>
</tr>
</tbody>
</table>

Exposure controls

Person protective equipment:

General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

Protective gloves
Select the glove material considering penetration time, rate of diffusion and degradation time.
It is recommended that the selected protective gloves be tested and approved under NIOSH or EU Directive 89/686/EEC and the standard EN 374 derived from it.

Material of gloves
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:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Fluid</td>
</tr>
<tr>
<td>Color</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Alcohol-like</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

Change in condition

Melting point/Melting range: Undetermined.
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

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 data available.

on the eye: No data available.

Sensitization: No sensitizing effects known.
Additional toxicological information:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories

<table>
<thead>
<tr>
<th>IARC (International Agency for Research on Cancer)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 ethanol</td>
<td>1</td>
</tr>
</tbody>
</table>

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 available
No further relevant information available.

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

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT, ADR, IMDG, IATA</th>
<th>UN1170</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UN proper shipping name</strong></td>
<td>DOT</td>
<td>Ethanol</td>
</tr>
<tr>
<td></td>
<td>ADR</td>
<td>1170 ETHANOL (ETHYL ALCOHOL)</td>
</tr>
<tr>
<td></td>
<td>IMDG</td>
<td>ETHANOL (ETHYL ALCOHOL)</td>
</tr>
<tr>
<td></td>
<td>IATA</td>
<td>ETHANOL</td>
</tr>
</tbody>
</table>

**Transport hazard class(es)**

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>3 Flammable liquids</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
</tr>
<tr>
<td>Label</td>
</tr>
</tbody>
</table>

**IMDG, IATA**

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 Flammable liquids</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Packing group**

<table>
<thead>
<tr>
<th>DOT, ADR, IMDG, IATA</th>
<th>II</th>
</tr>
</thead>
</table>

**Environmental hazards:**

**Marine pollutant:**

**Warning:** Flammable liquids

**Hazard identification number (Kemler code):** 33

**EMS Number:** F-E-S-D

**Stowage Category:** A

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

**Not applicable.**
Trade name: Nano-Glo® Luciferase Assay Substrate

Transport/Additional information:

ADR
Excepted quantities (EQ)  Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

IMDG
Limited quantities (LQ)  IL
Excepted quantities (EQ)  Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation":  UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II

15 Regulatory information

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

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:
64-17-5 ethanol
56-81-5 glycerol

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:
64-17-5 ethanol

Cancerogenity categories
EPA (Environmental Protection Agency)
None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)
64-17-5 ethanol  A3

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 Danger
Trade name: Nano-Glo® Luciferase Assay Substrate

51.1.1 Hazard statements
Highly flammable liquid and vapor.

Precautionary statements
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

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

Date of preparation / last revision 11/11/2020 / 1.0

Abbreviations and acronyms:
ADR: Accord européen sur le transport 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
ACGIH: American Conference of Governmental Industrial Hygienists
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
Flam. Liq. 2: Flammable liquids – Category 2

* Data compared to the previous version altered.
# 1 Identification

**Product identifier**  
**Trade name:** Nano-Glo(R) Luciferase Assay Buffer  
**Article number:** N112  
**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  
Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-800-356-9526 or (608)-274-4330

**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

**Carc. 2 H351** Suspected of causing cancer.  
**Repr. 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 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.
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 = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)
Health = 1
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.

3 Composition/information on ingredients

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

Dangerous components:

| 127087-87-0 | Nonylphenol Ethoxylate | <1% |
| 62-56-6     | thiourea               | <1% |

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

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

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).
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: The product is not flammable.

Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
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: Wash hands before breaks and at the end of work.
Breathing equipment: Not required.
Protection of hands:
Protective gloves
Trade name: Nano-Glo(R) Luciferase Assay Buffer

Select the glove material considering penetration time, rate of diffusion and degradation time. It is recommended that the selected protective gloves be tested and approved under NIOSH or EU Directive 89/686/EEC and the standard EN 374 derived from it.

Material of gloves
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: Use equipment for eye protection tested and approved under government NIOSH standards.

* 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td></td>
</tr>
<tr>
<td>Form: Fluid</td>
<td></td>
</tr>
<tr>
<td>Color: Colorless</td>
<td></td>
</tr>
<tr>
<td>Odor: Not determined</td>
<td></td>
</tr>
<tr>
<td>Odor threshold: Not determined.</td>
<td></td>
</tr>
<tr>
<td>pH-value at 20 °C (68 °F):</td>
<td>6</td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
<td>0 °C (32 °F)</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>100 °C (212 °F)</td>
</tr>
<tr>
<td>Flash point: Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting: Product is not selfigniting.</td>
<td></td>
</tr>
<tr>
<td>Danger of explosion: Product does not present an explosion hazard.</td>
<td></td>
</tr>
<tr>
<td>Explosion limits:</td>
<td></td>
</tr>
<tr>
<td>Lower: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Upper: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Density at 20 °C (68 °F):</td>
<td>1.02 g/cm³ (8.5119 lbs/gal)</td>
</tr>
<tr>
<td>Relative density: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Vapor density: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water: Fully miscible.</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water): Not determined.</td>
<td></td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic at 20 °C (68 °F):</td>
<td>0.0952 mPas</td>
</tr>
<tr>
<td>Kinematic: Not determined.</td>
<td></td>
</tr>
<tr>
<td>Water: 95.1 %</td>
<td></td>
</tr>
<tr>
<td>VOC content: 0.00 %</td>
<td></td>
</tr>
<tr>
<td>Solids content: 4.4 %</td>
<td></td>
</tr>
<tr>
<td>Other information No further relevant information available.</td>
<td></td>
</tr>
</tbody>
</table>
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 data available.

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

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**Carcinogenic categories**

<table>
<thead>
<tr>
<th>Source</th>
<th>Code</th>
<th>Substance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC (International Agency for Research on Cancer)</td>
<td>62-56-6 thiourea</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NTP (National Toxicology Program)</td>
<td>62-56-6 thiourea</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>OSHA/Ca (Occupational Safety &amp; Health Administration)</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

None of the ingredients are listed.

12. Ecological information

**Toxicity**

**Aquatic toxicity:**

Not available

**Persistence and degradability**

Not available

**Bioaccumulative potential**

Not known

**Mobility in soil**

No further relevant information available.

**Ecotoxicological effects:**

**Remark:** Not available

**Additional ecological information:**

**General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.
Trade name: Nano-Glo(R) Luciferase Assay Buffer

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                     | Not applicable                   |
| Class                                          | Not applicable                   |
| Packing group                                  | None                              |
| DOT, ADR, IMDG, IATA                           | Not applicable                   |
| Environmental hazards:                        | No                                |
| Marine pollutant:                              | Not applicable                   |
| 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):
127087-87-0 Nonylphenol Ethoxylate
62-56-6 thiourea
Trade name: Nano-Glo(R) Luciferase Assay Buffer

TSCA (Toxic Substances Control Act) Inventory:
All ingredients are listed.

Hazardous Air Pollutants
None of the ingredients are listed.

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:
None of the ingredients are listed.

Cancerogenity categories
EPA (Environmental Protection Agency)
None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)
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
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.
IF exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Water hazard class: Water hazard class 2 (Self-assessment): 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:
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Abbreviations and acronyms:
ADR: Accord européen sur le transport 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
ACGIH: American Conference of Governmental Industrial Hygienists
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)
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
Carc. 2: Carcinogenicity – Category 2
Repr. 2: Reproductive toxicity – Category 2

* Data compared to the previous version altered.