


# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

|                               |  |  |
|-------------------------------|--|--|
| Product name                  | <b>Glutaraldehyde; part of 'ECL™ direct nucleic acid labelling and detection system'</b> |  |
| Catalogue Number              | RPN3000  |  |
| Component Number              | NIF820   |  |
| Product description           | Not available.   |  |
| Product type                  | Liquid.  |  |
| Other means of identification | Not available.   |  |

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

#### Identified uses

Analytical chemistry.  
Laboratory chemicals  
Scientific research and development

### 1.3 Details of the supplier of the safety data sheet

|                 |   |  |
|-----------------|---|--|
| <b>Supplier</b> | Cytiva<br>Amersham Place<br>Little Chalfont<br>Buckinghamshire<br>HP7 9NA United Kingdom<br>+44 1494 508000 | <b>Hours of operation</b><br>08.30 - 17.00 |
|-----------------|---|--|

Person who prepared the SDS : sds\_author@cytiva.com

|                    |   |  |
|--------------------|---|--|
| <b>Switzerland</b> | Pall (Schweiz) GmbH<br>Schaeferweg 16<br>4057 Basel<br>Switzerland<br>t: 0848 8028 10 | <b>1.4 Emergency telephone number</b><br>Call INFOTRAC 24 Hour number:<br>001-352-323-3500 (Call Collect). |
|--------------------|---|--|

### National advisory body/Poison Centre

|                    |  |
|--------------------|--|
| <b>Switzerland</b> | Vergiftungsnotruf<br>Tel: 145<br><br>Aus dem Ausland oder bei technischen Problemen: +41 44 251 51 51<br><br><a href="https://www.toxinfo.ch/notruf-145">https://www.toxinfo.ch/notruf-145</a> |
|--------------------|--|

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Product definition Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315  
Eye Irrit. 2, H319  
Resp. Sens. 1, H334  
Skin Sens. 1, H317  
STOT SE 3, H335

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

**Ingredients of unknown toxicity** 1.5 percent of the mixture consists of component(s) of unknown acute dermal toxicity

**Ingredients of unknown ecotoxicity** Not applicable.

See Section 16 for the full text of the H statements declared above.  
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



**Signal word** Danger

**Hazard statements** Causes serious eye irritation.  
Causes skin irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
May cause respiratory irritation.

Precautionary statements

**General** Not applicable.

**Prevention** Wear protective gloves. Wear eye or face protection. Avoid breathing vapour.

**Response** IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician.

**Storage** Store locked up.

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

**Supplemental label elements** Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

Special packaging requirements

**Containers to be fitted with child-resistant fastenings** Not applicable.

**Tactile warning of danger** Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures Mixture

| Product/ingredient name | Identifiers   | %   | Classification<br>Regulation (EC) No. 1272/2008 [CLP]  | Type   |
|-------------------------|---|-----|--|--|
| glutaral                | REACH #:<br>01-2119455549-26<br>EC: 203-856-5<br>CAS: 111-30-8<br>Index: 605-022-00-X | 1.5 | Acute Tox. 3, H301<br>Acute Tox. 2, H330<br>Skin Corr. 1B, H314<br>Resp. Sens. 1, H334<br>Skin Sens. 1A, H317<br>STOT SE 3, H335<br>Aquatic Acute 1, H400<br>Aquatic Chronic 2, H411<br>EUH071<br><br>See Section 16 for the full text of the H statements declared above. | ATE [Oral] = 134 mg/kg<br>ATE [Inhalation (vapours)] = 0.5 mg/l<br>STOT SE 3, H335: C ≥ 0.5%<br>M [Acute] = 1<br>[1] [2] [3] |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

[1] Substance classified with a physical, health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance of equivalent concern

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

|                                   |   |
|-----------------------------------|---|
| <b>Eye contact</b>                | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.   |
| <b>Inhalation</b>                 | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In the event of any complaints or symptoms, avoid further exposure.               |
| <b>Skin contact</b>               | Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.   |
| <b>Ingestion</b>                  | Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| <b>Protection of first-aiders</b> | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.   |

### 4.2 Most important symptoms and effects, both acute and delayed

#### Over-exposure signs/symptoms

|                     |  |
|---------------------|--|
| <b>Eye contact</b>  | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness   |
| <b>Inhalation</b>   | Adverse symptoms may include the following:<br>respiratory tract irritation<br>coughing<br>wheezing and breathing difficulties<br>asthma |
| <b>Skin contact</b> | Adverse symptoms may include the following:<br>irritation<br>redness   |
| <b>Ingestion</b>    | No specific data.  |

### 4.3 Indication of any immediate medical attention and special treatment needed

|                            |   |
|----------------------------|---|
| <b>Notes to physician</b>  | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| <b>Specific treatments</b> | No specific treatment.  |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** None known.

### 5.2 Special hazards arising from the substance or mixture



|   |   |
|---|---|
| <b>Hazards from the substance or mixture</b>          | In a fire or if heated, a pressure increase will occur and the container may burst.   |
| <b>Hazardous combustion products</b>                  | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide  |
| <b>5.3 Advice for firefighters</b>                    |   |
| <b>Special precautions for fire-fighters</b>          | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.   |
| <b>Special protective equipment for fire-fighters</b> | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

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

|                                    |   |
|------------------------------------|---|
| <b>For non-emergency personnel</b> | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| <b>For emergency responders</b>    | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".   |

### 6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and material for containment and cleaning up

|                    |   |
|--------------------|---|
| <b>Small spill</b> | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.   |
| <b>Large spill</b> | Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. |

### 6.4 Reference to other sections

See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

|   |   |
|---|---|
| <b>Protective measures</b>                    | Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| <b>Advice on general occupational hygiene</b> | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.   |

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

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

|   |  |
|---|--|
| <b>Recommendations</b>                      | Analytical chemistry. Laboratory chemicals. Scientific research and development. |
| <b>Industrial sector specific solutions</b> | Not available.   |




SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario (s).

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name  | Exposure limit values  |
|--|--|
|  glutaral | <b>SUVA (Switzerland, 1/2025) Sensitiser.</b><br>TWA 8 hours: 0.05 ppm.<br>TWA 8 hours: 0.21 mg/m³.<br>STEL 15 minutes: 0.1 ppm.<br>STEL 15 minutes: 0.42 mg/m³. |

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name

 glutaral

Result

**DNEL - General population - Long term - Oral**

0.07 mg/kg bw/day

Effects: Systemic

**DNEL - Workers - Long term - Dermal**

6.25 mg/kg bw/day

Effects: Systemic

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.


9.1 Information on basic physical and chemical properties

Appearance

|  |                |
|--|----------------|
| Physical state   | Liquid.        |
| Colour   | Colourless.    |
| Odour  | Not available. |
| Odour threshold  | Not available. |
| Melting point/freezing point                             | Not available. |
| Boiling point or initial boiling point and boiling range | Not available. |
| Flammability   | Not available. |
| Lower and upper explosion limit                          | Not available. |

|                           |                 |
|---------------------------|-----------------|
| Flash point               | Not applicable. |
| Auto-ignition temperature | Not available.  |
| Decomposition temperature | Not available.  |
| pH                        | Not available.  |
| Viscosity                 | Not available.  |

|   |                |                |
|---|----------------|----------------|
| Solubility                              |                |                |
| Media                                   |                | Result         |
| cold water                              |                | Easily soluble |
| hot water                               |                | Easily soluble |
| Solubility in water                     | Not available. |                |
| Partition coefficient: n-octanol/ water | Not available. |                |
| Vapour pressure                         | Not available. |                |

| Ingredient name   | Vapour Pressure at 20°C |     |        | Vapour pressure at 50°C |     |        |
|---|-------------------------|-----|--------|-------------------------|-----|--------|
|   | mm Hg                   | kPa | Method | mm Hg                   | kPa | Method |
|  Water | 17.5                    | 2.3 |        |                         |     |        |
| glutaral  | 15.00128                | 2   |        |                         |     |        |

|                         |                |
|-------------------------|----------------|
| Relative density        | Not available. |
| Relative vapour density | Not available. |

Particle characteristics

|                      |                 |
|----------------------|-----------------|
| Median particle size | Not applicable. |
|----------------------|-----------------|

9.2 Other information

9.2.1 Information with regard to physical hazard classes

|                      |                 |
|----------------------|-----------------|
| Burning time         | Not applicable. |
| Burning rate         | Not applicable. |
| Explosive properties | Not available.  |
| Oxidising properties | Not available.  |

9.2.2 Other safety characteristics

|                  |                 |
|------------------|-----------------|
| Evaporation rate | Not available.  |
|                  | Not applicable. |

SECTION 10: Stability and reactivity

|                 |  |
|-----------------|--|
| 10.1 Reactivity | No specific test data related to reactivity available for this product or its ingredients. |
|-----------------|--|

|                         |                        |
|-------------------------|------------------------|
| 10.2 Chemical stability | The product is stable. |
|-------------------------|------------------------|

|   |   |
|---|---|
| 10.3 Possibility of hazardous reactions | Under normal conditions of storage and use, hazardous reactions will not occur. |
|---|---|

|                          |                   |
|--------------------------|-------------------|
| 10.4 Conditions to avoid | No specific data. |
|--------------------------|-------------------|

|                             |                   |
|-----------------------------|-------------------|
| 10.5 Incompatible materials | No specific data. |
|-----------------------------|-------------------|

|                                       |  |
|---------------------------------------|--|
| 10.6 Hazardous decomposition products | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|---------------------------------------|--|



SECTION 11: Toxicological information

11.1 Information on toxicological effects

| Product/ingredient name | Result   |
|-------------------------|--|
| glutaral                | <b>Rat - Oral - LD50</b><br>134 mg/kg                        |
|                         | <b>Rat - Inhalation - LC50 Vapour</b><br>480 mg/m³ [4 hours] |

Conclusion/Summary [Product] Not available.

Acute toxicity estimates

| Product/ingredient name         | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---------------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| Glutaraldehyde - NIF820 - GROUP | 8933.3       | N/A            | N/A                      | 33.3                        | N/A                                 |
| glutaral                        | 134          | N/A            | N/A                      | 0.5                         | N/A                                 |

Skin corrosion/irritation

Not available.

Conclusion/Summary [Product] Not available.

Serious eye damage/eye irritation

Not available.

Conclusion/Summary [Product] Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] Not available.

Respiratory

Conclusion/Summary [Product] Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] Not available.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Result |
|-------------------------|--------|
| glutaral                | -      |

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure      Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation      May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Ingestion      No known significant effects or critical hazards.

Skin contact      Causes skin irritation. May cause an allergic skin reaction.

Eye contact      Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation      Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
wheezing and breathing difficulties  
asthma

Ingestion      No specific data.

Skin contact      Adverse symptoms may include the following:  
irritation  
redness

Eye contact      Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

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

Short term exposure

Potential immediate effects      Not available.

Potential delayed effects      Not available.

Long term exposure

Potential immediate effects      Not available.

Potential delayed effects      Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product]      Not available.

General      Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity      No known significant effects or critical hazards.

Mutagenicity      No known significant effects or critical hazards.

Reproductive toxicity      No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product]      The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result |
|-------------------------|--------|
|-------------------------|--------|

|          |   |
|----------|---|
| glutaral | <b>Acute - EC50 - Fresh water</b><br>US EPA<br>Daphnia - Water flea - <i>Daphnia magna</i><br>Age: <24 hours<br>14.6 ppm [48 hours]<br>Effect: Intoxication   |
|          | <b>Acute - LC50 - Fresh water</b><br>US EPA<br>Fish - Fathead minnow - <i>Pimephales promelas</i><br>Size: 12.9 mm<br>5.4 ppm [96 hours]<br>Effect: Mortality |
|          | <b>Acute - EC50 - Fresh water</b><br>US EPA<br>Algae - Green algae - <i>Raphidocelis subcapitata</i><br>0.31 ppm [96 hours]<br>Effect: Population             |

Conclusion/Summary [Product] Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| glutaral                | -                 | -          | Not readily      |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| glutaral                | -0.36              | -   | Low       |

12.4 Mobility in soil

Soil/water partition coefficient

| Product/ingredient name | logK <sub>oc</sub> | K <sub>oc</sub> |
|-------------------------|--------------------|-----------------|
| glutaral                | 1.3                | 21.9208         |

Results of PMT and vPvM assessment

| Product/ingredient name | PMT   | P   | M   | T  | vPvM | vP  | vM  |
|-------------------------|---|-----|-----|----|------|-----|-----|
| glutaral                | No  | N/A | Yes | No | N/A  | N/A | Yes |
| Mobility                | Not available.  |     |     |    |      |     |     |
| Conclusion/Summary      | The product does not meet the criteria to be considered as a PMT or vPvM. |     |     |    |      |     |     |

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

| Product/ingredient name | PBT | P   | B   | T  | vPvB | vP  | vB  |
|-------------------------|-----|-----|-----|----|------|-----|-----|
| glutaral                | No  | N/A | N/A | No | N/A  | N/A | N/A |

Regulation (EC) No. 1272/2008 [CLP]

| Product/ingredient name | PBT | P   | B   | T  | vPvB | vP  | vB  |
|-------------------------|-----|-----|-----|----|------|-----|-----|
| glutaral                | No  | N/A | N/A | No | N/A  | N/A | N/A |

Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP] The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Endocrine disrupting properties

Not applicable.

Conclusion/Summary [Product] The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.



SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

|                     |   |
|---------------------|---|
| Methods of disposal | The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. |
| Hazardous waste     | Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.   |

Packaging

|                     |   |
|---------------------|---|
| Methods of disposal | The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.  |
| Special precautions | This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. |

SECTION 14: Transport information

|                                 | ADR/RID        | ADN            | IMDG           | IATA           |
|---------------------------------|----------------|----------------|----------------|----------------|
| 14.1 UN number                  | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name    | -              | -              | -              | -              |
| 14.3 Transport hazard class(es) | -              | -              | -              | -              |
| 14.4 Packing group              | -              | -              | -              | -              |
| 14.5 Environmental hazards      | No.            | No.            | No.            | No.            |
| Additional information          | -              | -              | -              | -              |

|   |   |
|---|---|
| 14.6 Special precautions for user                   | <b>Transport within user's premises:</b> always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. |
| 14.7 Transport in bulk according to IMO instruments | Not available.  |

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

| Intrinsic property                               | Ingredient name | Status      | Reference number    | Date of revision |
|--|-----------------|-------------|---------------------|------------------|
| Substance of equivalent concern for human health | glutaral        | Recommended | 11th recommendation | 4/12/2023        |

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

| Product/ingredient name  | %               | Designation [Usage] |
|--|-----------------|---------------------|
| Glutaraldehyde; part of 'ECL direct nucleic acid labelling and detection system' | ≥90             | 3                   |
| Labelling  | Not applicable. |                     |



Other EU regulations

- Industrial emissions  
(integrated pollution  
prevention and control) - Air

Not listed
- Industrial emissions  
(integrated pollution  
prevention and control) -  
Water

Not listed
- Explosive precursors

Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

- VOC content

Exempt.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- United States

All components are listed or exempted.
- Canada inventory

All components are listed or exempted.
- China


All components are listed or exempted.
- Japan

Japan inventory (CSCL): All components are listed or exempted.  
Japan inventory (ISHL): Not determined.

15.2 Chemical safety  
assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

 Indicates information that has changed from previously issued version.

- Abbreviations and acronyms
- ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
N/A = Not available  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification  | Justification  |
|---|--|
| Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Resp. Sens. 1, H334<br>Skin Sens. 1, H317<br>STOT SE 3, H335 | Calculation method<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method |

|   |                         |  |
|---|-------------------------|--|
| Full text of abbreviated H statements   | H301                    | Toxic if swallowed.  |
|   | H314                    | Causes severe skin burns and eye damage.   |
|   | H315                    | Causes skin irritation.  |
|   | H317                    | May cause an allergic skin reaction.   |
|   | H319                    | Causes serious eye irritation.   |
|   | H330                    | Fatal if inhaled.  |
|   | H334                    | May cause allergy or asthma symptoms or breathing difficulties if inhaled.                   |
|   | H335                    | May cause respiratory irritation.  |
|   | H400                    | Very toxic to aquatic life.  |
|   | H411                    | Toxic to aquatic life with long lasting effects.   |
|   |                         |  |
| Full text of classifications [CLP/ GHS] | Acute Tox. 2, H330      | ACUTE TOXICITY (inhalation) - Category 2   |
|   | Acute Tox. 3, H301      | ACUTE TOXICITY (oral) - Category 3   |
|   | Aquatic Acute 1, H400   | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1   |
|   | Aquatic Chronic 2, H411 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2  |
|   | EUH071                  | Corrosive to the respiratory tract.  |
|   | Eye Irrit. 2, H319      | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2   |
|   | Resp. Sens. 1, H334     | RESPIRATORY SENSITISATION - Category 1   |
|   | Skin Corr. 1B, H314     | SKIN CORROSION/IRRITATION - Category 1B  |
|   | Skin Irrit. 2, H315     | SKIN CORROSION/IRRITATION - Category 2   |
|   | Skin Sens. 1, H317      | SKIN SENSITISATION - Category 1  |
|   | Skin Sens. 1A, H317     | SKIN SENSITISATION - Category 1A   |
|   | STOT SE 3, H335         | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 |
| Date of printing                        | 12 February 2026        |  |
| Date of issue/ Date of revision         | 12 February 2026        |  |
| Date of previous issue                  | 13 May 2024             |  |
| Version                                 | 6.02                    |  |

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