

# SAFETY DATA SHEET

**SIEMENS**

Dimension Lipase (LIP)

SDS # :

DEDM0444

## Section 1. Identification

**Product identifier** : Dimension Lipase (LIP)  
**Product code** : DF56A, 11538126  
**Product type** : Liquid.

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

Not applicable.

**Manufactured/supplied** : Siemens Healthcare Diagnostics Inc.  
 511 Benedict Avenue  
 Tarrytown, NY 10591-5097 USA  
 1-877-229-3711  
 (800) 424-9300 (CHEMTREC) (24/365)

## Section 2. Hazards identification

**OSHA/HCS status** : Reagent 1 (R1)

Reagent 2 (R2)

Reagent 3 (R3)

**Classification of the substance or mixture** : Reagent 1 (R1)  
 Reagent 2 (R2)  
 Reagent 3 (R3)

**Additional information** : Not available.

Sodium azide may react with lead or copper plumbing to form highly explosive metal azides.

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Not classified.

Not classified.

CORROSIVE TO METALS - Category 1

SKIN CORROSION - Category 1

SERIOUS EYE DAMAGE - Category 1

### GHS label elements

**Hazard pictograms** :**Signal word** :

Danger

## Section 2. Hazards identification

|   |  |   |
|---|--|---|
| <b>Hazard statements</b>                | : Reagent 1 (R1)                                     | No known significant effects or critical hazards.   |
|   | Reagent 2 (R2)                                       | No known significant effects or critical hazards.   |
|   | Reagent 3 (R3)                                       | H290 - May be corrosive to metals.<br>H314 - Causes severe skin burns and eye damage.   |
| <b>Precautionary statements</b>         |  |   |
| <b>Prevention</b>                       | : Reagent 1 (R1)                                     | Not applicable.   |
|   | Reagent 2 (R2)                                       | Not applicable.   |
|   | Reagent 3 (R3)                                       | P234 - Keep only in original container.<br>P264 - Wash hands thoroughly after handling.<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection.  |
| <b>Response</b>                         | : <input checked="" type="checkbox"/> Reagent 1 (R1) | Not applicable.   |
|   | Reagent 2 (R2)                                       | Not applicable.   |
|   | Reagent 3 (R3)                                       | P353 - Rinse skin with water [or shower].<br>P301 - IF SWALLOWED:<br>P330 - Rinse mouth.<br>P331 - Do NOT induce vomiting.<br>P303 - IF ON SKIN (or hair):<br>P361 - Take off immediately all contaminated clothing.<br>P310 - Immediately call a POISON CENTER or doctor/physician.<br>P305 - IF IN EYES:<br>P351 - Rinse cautiously with water for several minutes.<br>P338 - Remove contact lenses, if present and easy to do. Continue rinsing.<br>P390 - Absorb spillage to prevent material damage. |
| <b>Storage</b>                          | : Reagent 1 (R1)                                     | Not applicable.   |
|   | Reagent 2 (R2)                                       | Not applicable.   |
|   | Reagent 3 (R3)                                       | P405 - Store locked up.<br>P406 - Store in a corrosion resistant polyethylene container with a resistant inner liner.   |
| <b>Disposal</b>                         | : Reagent 1 (R1)                                     | Not applicable.   |
|   | Reagent 2 (R2)                                       | Not applicable.   |
|   | Reagent 3 (R3)                                       | P501 - Dispose of contents and container in accordance with all local, regional, and national regulations.  |
| <b>Supplemental label elements</b>      | : Reagent 1 (R1)                                     | None known.   |
|   | Reagent 2 (R2)                                       | None known.   |
|   | Reagent 3 (R3)                                       | None known.   |
| <b>Hazards not otherwise classified</b> | : Reagent 1 (R1)                                     | None known.   |
|   | Reagent 2 (R2)                                       | None known.   |
|   | Reagent 3 (R3)                                       | None known.   |

## Section 3. Composition/information on ingredients

|                          |                  |         |
|--------------------------|------------------|---------|
| <b>Substance/mixture</b> | : Reagent 1 (R1) | Mixture |
|                          | Reagent 2 (R2)   | Mixture |
|                          | Reagent 3 (R3)   | Mixture |

| Ingredient name                           | %      | CAS number |
|---|--------|------------|
| <b>Reagent 1 (R1)</b><br>sodium azide     | <0.025 | 26628-22-8 |
| <b>Reagent 3 (R3)</b><br>sodium hydroxide | 3.99   | 1310-73-2  |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

### Section 3. Composition/information on ingredients

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 and hence require reporting in this section.

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

### Section 4. First aid measures

#### Description of necessary first aid measures

**Eye contact** : Reagent 1 (R1)

Reagent 2 (R2)

Reagent 3 (R3)

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.

**Inhalation** : Reagent 1 (R1)

Reagent 2 (R2)

Reagent 3 (R3)

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Get medical attention immediately. Call a poison center or physician. 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. 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.

**Skin contact** : Reagent 1 (R1)

Reagent 2 (R2)

Reagent 3 (R3)

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of 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. Chemical burns must be treated promptly by a physician. Wash clothing

## Section 4. First aid measures

### Ingestion

: Reagent 1 (R1)

before reuse. Clean shoes thoroughly before reuse.

Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Reagent 2 (R2)

Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Reagent 3 (R3)

Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. 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.

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

#### Potential acute health effects

##### Eye contact

: Reagent 1 (R1)

No known significant effects or critical hazards.

Reagent 2 (R2)

No known significant effects or critical hazards.

Reagent 3 (R3)

Causes serious eye damage.

##### Inhalation

: Reagent 1 (R1)

No known significant effects or critical hazards.

Reagent 2 (R2)

No known significant effects or critical hazards.

Reagent 3 (R3)

No known significant effects or critical hazards.

##### Skin contact

: Reagent 1 (R1)

No known significant effects or critical hazards.

Reagent 2 (R2)

No known significant effects or critical hazards.

Reagent 3 (R3)

Causes severe burns.

## Section 4. First aid measures

|                  |                  |   |
|------------------|------------------|---|
| <b>Ingestion</b> | : Reagent 1 (R1) | No known significant effects or critical hazards. |
|                  | Reagent 2 (R2)   | No known significant effects or critical hazards. |
|                  | Reagent 3 (R3)   | No known significant effects or critical hazards. |

### Over-exposure signs/symptoms

|                    |                  |  |
|--------------------|------------------|--|
| <b>Eye contact</b> | : Reagent 1 (R1) | No specific data.  |
|                    | Reagent 2 (R2)   | No specific data.  |
|                    | Reagent 3 (R3)   | Adverse symptoms may include the following:<br>pain<br>watering<br>redness |

|                   |                  |                   |
|-------------------|------------------|-------------------|
| <b>Inhalation</b> | : Reagent 1 (R1) | No specific data. |
|                   | Reagent 2 (R2)   | No specific data. |
|                   | Reagent 3 (R3)   | No specific data. |

|                     |                  |  |
|---------------------|------------------|--|
| <b>Skin contact</b> | : Reagent 1 (R1) | No specific data.  |
|                     | Reagent 2 (R2)   | No specific data.  |
|                     | Reagent 3 (R3)   | Adverse symptoms may include the following:<br>pain or irritation<br>redness<br>blistering may occur |

|                  |                  |  |
|------------------|------------------|--|
| <b>Ingestion</b> | : Reagent 1 (R1) | No specific data.  |
|                  | Reagent 2 (R2)   | No specific data.  |
|                  | Reagent 3 (R3)   | Adverse symptoms may include the following:<br>stomach pains |

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

|                                   |   |
|-----------------------------------|---|
| <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.  |
| <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. |

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

|                                       |   |
|---------------------------------------|---|
| <b>Suitable extinguishing media</b>   | : In case of fire, use water spray (fog), foam or dry chemical. |
| <b>Unsuitable extinguishing media</b> | : None known.   |

|   |   |
|---|---|
| <b>Specific hazards arising from the chemical</b> | : In a fire or if heated, a pressure increase will occur and the container may burst. |
|---|---|

|   |   |
|---|---|
| <b>Hazardous thermal decomposition products</b> | : Decomposition products may include the following materials:<br>metal oxide/oxides |
|---|---|

|   |   |
|---|---|
| <b>Special protective actions 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. |
|---|---|

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : 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 spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled 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).

### Methods and materials for containment and cleaning up

- Small spill** : 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.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

## Section 8. Exposure controls/personal protection

| Ingredient name                           | Exposure limits   |
|---|---|
| <b>Reagent 1 (R1)</b><br>sodium azide     | <b>ACGIH TLV (United States, 3/2019). Notes: as hydrazoic acid vapor</b><br>C: 0.11 ppm, (as Hydrazoic acid vapor)<br>Form: as Hydrazoic acid vapor<br><b>ACGIH TLV (United States, 3/2019).</b><br>C: 0.29 mg/m <sup>3</sup> , (as Sodium azide) Form: as Sodium azide<br><b>NIOSH REL (United States, 10/2016).</b><br><b>Absorbed through skin. Notes: NaN<sub>3</sub></b><br>CEIL: 0.3 mg/m <sup>3</sup> , (NaN <sub>3</sub> )<br><b>NIOSH REL (United States, 10/2016).</b><br><b>Absorbed through skin. Notes: as HN<sub>3</sub></b><br>CEIL: 0.1 ppm, (as HN <sub>3</sub> )<br><b>OSHA PEL 1989 (United States, 3/1989).</b><br><b>Absorbed through skin. Notes: as HN<sub>3</sub></b><br>CEIL: 0.1 ppm, (as HN <sub>3</sub> )<br><b>OSHA PEL 1989 (United States, 3/1989).</b><br><b>Absorbed through skin. Notes: as NaN<sub>3</sub></b><br>CEIL: 0.3 mg/m <sup>3</sup> , (as NaN <sub>3</sub> ) |
| <b>Reagent 3 (R3)</b><br>sodium hydroxide | <b>ACGIH TLV (United States, 3/2019).</b><br>C: 2 mg/m <sup>3</sup><br><b>NIOSH REL (United States, 10/2016).</b><br>CEIL: 2 mg/m <sup>3</sup><br><b>OSHA PEL (United States, 5/2018).</b><br>TWA: 2 mg/m <sup>3</sup> 8 hours.<br><b>OSHA PEL 1989 (United States, 3/1989).</b><br>CEIL: 2 mg/m <sup>3</sup>   |

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor 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.

**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.

### 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. 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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### 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.



## Section 8. Exposure controls/personal protection

- 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.

## Section 9. Physical and chemical properties

|   |  |   |
|---|--|---|
| <b>Physical state</b>                         | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)         | Liquid.<br>Liquid.<br>Liquid.   |
| <b>Color</b>                                  | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)         | Colorless.<br>Red. [Light]<br>Colorless.  |
| <b>Odor</b>                                   | : Reagent 1 (R1)<br><br>Reagent 2 (R2)<br><br>Reagent 3 (R3) | Not relevant/applicable due to nature of the product.<br>Not relevant/applicable due to nature of the product.<br>Odorless.   |
| <b>pH</b>                                     | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)         | 7.9 to 8.1<br>4.11 to 4.21<br>14  |
| <b>Flash point</b>                            | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)         | [Product does not sustain combustion.]<br>[Product does not sustain combustion.]<br>[Product does not sustain combustion.]  |
| <b>Flammability (solid, gas)</b>              | : Reagent 1 (R1)<br><br>Reagent 2 (R2)<br><br>Reagent 3 (R3) | Not relevant/applicable due to nature of the product.<br>Not relevant/applicable due to nature of the product.<br>Not relevant/applicable due to nature of the product. |
| <b>Relative density</b>                       | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)         | 1.0077<br>1.0018<br>1.01  |
| <b>Solubility in water</b>                    | : Reagent 1 (R1)<br><br>Reagent 2 (R2)<br><br>Reagent 3 (R3) | Not relevant/applicable due to nature of the product.<br>Not relevant/applicable due to nature of the product.<br>Not relevant/applicable due to nature of the product. |
| <b>Partition coefficient: n-octanol/water</b> | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)         | Not available.<br>Not available.<br>Not available.  |
| <b>Auto-ignition temperature</b>              | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)         | Not available.<br>Not available.<br>Not available.  |
| <b>Viscosity</b>                              | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)         | Not available.<br>Not available.<br>Not available.  |
| <b><u>Aerosol product</u></b>                 |  |   |
| <b>Type of aerosol</b>                        | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)         | Not applicable.<br>Not applicable.<br>Not applicable.   |



## Section 10. Stability and reactivity

|   |   |  |
|---|---|--|
| <b>Reactivity</b>                         | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)                              | No specific test data related to reactivity available for this product or its ingredients.<br>No specific test data related to reactivity available for this product or its ingredients.<br>No specific test data related to reactivity available for this product or its ingredients.                               |
| <b>Chemical stability</b>                 | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)                              | The product is stable.<br>The product is stable.<br>The product is stable.   |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur. |  |
| <b>Conditions to avoid</b>                | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)                              | No specific data.<br>No specific data.<br>No specific data.  |
| <b>Incompatible materials</b>             | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)                              | No specific data.<br>No specific data.<br>Reactive or incompatible with the following materials:<br>acids<br>metals  |
| <b>Hazardous decomposition products</b>   | : Reagent 1 (R1)<br><br>Reagent 2 (R2)<br><br>Reagent 3 (R3)                      | Under normal conditions of storage and use, hazardous decomposition products should not be produced.<br>Under normal conditions of storage and use, hazardous decomposition products should not be produced.<br>Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name               | Result                                  | Species              | Dose                             | Exposure    |
|---------------------------------------|---|----------------------|----------------------------------|-------------|
| <b>Reagent 1 (R1)</b><br>sodium azide | LD50 Dermal<br>LD50 Dermal<br>LD50 Oral | Rabbit<br>Rat<br>Rat | 20 mg/kg<br>50 mg/kg<br>27 mg/kg | -<br>-<br>- |

|                           |  |  |
|---------------------------|--|--|
| <b>Conclusion/Summary</b> | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |
|---------------------------|--|--|

#### Irritation/Corrosion

| Product/ingredient name                   | Result   | Species   | Score                                   | Exposure   | Observation                             |
|---|--|---|---|--|---|
| <b>Reagent 3 (R3)</b><br>sodium hydroxide | Eyes - Severe irritant<br>Eyes - Mild irritant<br>Eyes - Severe irritant<br><br>Eyes - Severe irritant<br>Eyes - Severe irritant<br><br>Skin - Mild irritant<br>Skin - Severe irritant | Monkey<br>Rabbit<br>Rabbit<br><br>Rabbit<br>Rabbit<br><br>Human<br>Rabbit | -<br>-<br>-<br><br>-<br>-<br><br>-<br>- | 24 hours 1 %<br>400 ug<br>24 hours 50 ug<br>1 %<br>0.5 minutes 1 mg<br>24 hours 2 %<br>24 hours 500 mg | -<br>-<br>-<br><br>-<br>-<br><br>-<br>- |

#### Conclusion/Summary

## Section 11. Toxicological information

|                    |  |  |
|--------------------|--|--|
| <b>Skin</b>        | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |
| <b>Eyes</b>        | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |
| <b>Respiratory</b> | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |

### Sensitization

Not available.

### Conclusion/Summary

|                    |  |  |
|--------------------|--|--|
| <b>Skin</b>        | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |
| <b>Respiratory</b> | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |

### Mutagenicity

Not available.

|                           |  |  |
|---------------------------|--|--|
| <b>Conclusion/Summary</b> | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |
|---------------------------|--|--|

### Carcinogenicity

Not available.

|                           |  |  |
|---------------------------|--|--|
| <b>Conclusion/Summary</b> | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |
|---------------------------|--|--|

### Reproductive toxicity

Not available.

|                           |  |  |
|---------------------------|--|--|
| <b>Conclusion/Summary</b> | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |
|---------------------------|--|--|

### Teratogenicity

Not available.

|                           |  |  |
|---------------------------|--|--|
| <b>Conclusion/Summary</b> | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |
|---------------------------|--|--|

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

|   |  |  |
|---|--|--|
| <b>Information on the likely routes of exposure</b> | : Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not available.<br>Not available.<br>Not available. |
|---|--|--|

### Potential acute health effects

|                    |  |  |
|--------------------|--|--|
| <b>Eye contact</b> | : Reagent 1 (R1)<br><br>Reagent 2 (R2)<br><br>Reagent 3 (R3) | No known significant effects or critical hazards.<br>No known significant effects or critical hazards.<br>Causes serious eye damage. |
|--------------------|--|--|

## Section 11. Toxicological information

|                     |                  |   |
|---------------------|------------------|---|
| <b>Inhalation</b>   | : Reagent 1 (R1) | No known significant effects or critical hazards. |
|                     | Reagent 2 (R2)   | No known significant effects or critical hazards. |
|                     | Reagent 3 (R3)   | No known significant effects or critical hazards. |
| <b>Skin contact</b> | : Reagent 1 (R1) | No known significant effects or critical hazards. |
|                     | Reagent 2 (R2)   | No known significant effects or critical hazards. |
|                     | Reagent 3 (R3)   | Causes severe burns.                              |
| <b>Ingestion</b>    | : Reagent 1 (R1) | No known significant effects or critical hazards. |
|                     | Reagent 2 (R2)   | No known significant effects or critical hazards. |
|                     | Reagent 3 (R3)   | No known significant effects or critical hazards. |

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

|                     |                  |  |
|---------------------|------------------|--|
| <b>Eye contact</b>  | : Reagent 1 (R1) | No specific data.  |
|                     | Reagent 2 (R2)   | No specific data.  |
|                     | Reagent 3 (R3)   | Adverse symptoms may include the following:<br>pain<br>watering<br>redness                           |
| <b>Inhalation</b>   | : Reagent 1 (R1) | No specific data.  |
|                     | Reagent 2 (R2)   | No specific data.  |
|                     | Reagent 3 (R3)   | No specific data.  |
| <b>Skin contact</b> | : Reagent 1 (R1) | No specific data.  |
|                     | Reagent 2 (R2)   | No specific data.  |
|                     | Reagent 3 (R3)   | Adverse symptoms may include the following:<br>pain or irritation<br>redness<br>blistering may occur |
| <b>Ingestion</b>    | : Reagent 1 (R1) | No specific data.  |
|                     | Reagent 2 (R2)   | No specific data.  |
|                     | Reagent 3 (R3)   | Adverse symptoms may include the following:<br>stomach pains   |

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

#### Short term exposure

|                                    |                  |                |
|------------------------------------|------------------|----------------|
| <b>Potential immediate effects</b> | : Reagent 1 (R1) | Not available. |
|                                    | Reagent 2 (R2)   | Not available. |
|                                    | Reagent 3 (R3)   | Not available. |
| <b>Potential delayed effects</b>   | : Reagent 1 (R1) | Not available. |
|                                    | Reagent 2 (R2)   | Not available. |
|                                    | Reagent 3 (R3)   | Not available. |

#### Long term exposure

|                                    |                  |                |
|------------------------------------|------------------|----------------|
| <b>Potential immediate effects</b> | : Reagent 1 (R1) | Not available. |
|                                    | Reagent 2 (R2)   | Not available. |
|                                    | Reagent 3 (R3)   | Not available. |
| <b>Potential delayed effects</b>   | : Reagent 1 (R1) | Not available. |
|                                    | Reagent 2 (R2)   | Not available. |
|                                    | Reagent 3 (R3)   | Not available. |

#### Potential chronic health effects

Not available.

|                           |                  |                |
|---------------------------|------------------|----------------|
| <b>Conclusion/Summary</b> | : Not available. | Reagent 1 (R1) |
|                           | Not available.   | Reagent 2 (R2) |
|                           | Not available.   | Reagent 3 (R3) |

## Section 11. Toxicological information

|                              |   |
|------------------------------|---|
| <b>General</b>               | : No known significant effects or critical hazards.                                     |
| <b>Carcinogenicity</b>       | : No known significant effects or critical hazards.                                     |
| <b>Mutagenicity</b>          | : No known significant effects or critical hazards.                                     |
| <b>Reproductive toxicity</b> | : <input checked="" type="checkbox"/> No known significant effects or critical hazards. |

### Numerical measures of toxicity

#### Acute toxicity estimates

| Product/ingredient name               | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---------------------------------------|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| <b>Reagent 1 (R1)</b><br>sodium azide | 27           | 20             | N/A                      | N/A                        | N/A                                 |

|                            |                  |                |
|----------------------------|------------------|----------------|
| <b>Interactive effects</b> | : Reagent 1 (R1) | Not available. |
|                            | : Reagent 2 (R2) | Not available. |
|                            | : Reagent 3 (R3) | Not available. |

|                          |                  |                |
|--------------------------|------------------|----------------|
| <b>Other information</b> | : Reagent 1 (R1) | Not available. |
|                          | : Reagent 2 (R2) | Not available. |
|                          | : Reagent 3 (R3) | Not available. |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name                   | Result                              | Species  | Exposure |
|---|-------------------------------------|--|----------|
| <b>Reagent 1 (R1)</b><br>sodium azide     | Acute EC50 0.348 mg/l Fresh water   | Algae - Pseudokirchneriella subcapitata        | 96 hours |
|   | Acute EC50 6.4 mg/l Fresh water     | Crustaceans - Simocephalus serrulatus - Larvae | 48 hours |
|   | Acute EC50 4.2 mg/l Fresh water     | Daphnia - Daphnia pulex - Larvae               | 48 hours |
|   | Acute LC50 0.68 mg/l Fresh water    | Fish - Lepomis macrochirus                     | 96 hours |
|   | Chronic NOEC 5600 µg/l Marine water | Algae - Macrocyctis pyrifera                   | 96 hours |
| <b>Reagent 3 (R3)</b><br>sodium hydroxide | Acute EC50 40.38 mg/l Fresh water   | Crustaceans - Ceriodaphnia dubia - Neonate     | 48 hours |
|   | Acute LC50 125 ppm Fresh water      | Fish - Gambusia affinis - Adult                | 96 hours |

|                           |                  |                |
|---------------------------|------------------|----------------|
| <b>Conclusion/Summary</b> | : Reagent 1 (R1) | Not available. |
|                           | : Reagent 2 (R2) | Not available. |
|                           | : Reagent 3 (R3) | Not available. |

### Persistence and degradability

|                           |                  |                |
|---------------------------|------------------|----------------|
| <b>Conclusion/Summary</b> | : Reagent 1 (R1) | Not available. |
|                           | : Reagent 2 (R2) | Not available. |
|                           | : Reagent 3 (R3) | Not available. |

### Bioaccumulative potential

Not available.

### Mobility in soil

|  |                  |                |
|--|------------------|----------------|
| <b>Soil/water partition coefficient (K<sub>oc</sub>)</b> | : Reagent 1 (R1) | Not available. |
|  | : Reagent 2 (R2) | Not available. |
|  | : Reagent 3 (R3) | Not available. |
| <b>Mobility</b>  | : Reagent 1 (R1) | Not available. |
|  | : Reagent 2 (R2) | Not available. |
|  | : Reagent 3 (R3) | Not available. |

## Section 12. Ecological information

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

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Sodium azide may react with lead or copper plumbing to form highly explosive metal azides.

## Section 14. Transport information

### DOT Classification

|                                   |  |  |
|-----------------------------------|--|--|
| <b>UN number</b>                  | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not regulated.<br>Not regulated.<br>UN1824 |
| <b>UN proper shipping name</b>    | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>SODIUM HYDROXIDE, SOLUTION       |
| <b>Transport hazard class(es)</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>8                                |
| <b>Packing group</b>              | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>II                               |
| <b>Environmental hazards</b>      | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | No.<br>No.<br>No.                          |
| <b>Additional information</b>     | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>-                                |

### TDG Classification

|                                   |  |  |
|-----------------------------------|--|--|
| <b>UN number</b>                  | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not regulated.<br>Not regulated.<br>UN1824 |
| <b>UN proper shipping name</b>    | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>SODIUM HYDROXIDE, SOLUTION       |
| <b>Transport hazard class(es)</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>8                                |
| <b>Packing group</b>              | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>II                               |

## Section 14. Transport information

|                               |  |   |
|-------------------------------|--|---|
| <b>Environmental hazards</b>  | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | No.<br>No.<br>No.   |
| <b>Additional information</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8). |

### ADR/RID

|                                   |  |  |
|-----------------------------------|--|--|
| <b>UN number</b>                  | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not regulated.<br>Not regulated.<br>UN1824 |
| <b>UN proper shipping name</b>    | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>SODIUM HYDROXIDE, SOLUTION       |
| <b>Transport hazard class(es)</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>8                                |

|                      |  |              |
|----------------------|--|--------------|
| <b>Packing group</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>II |
|----------------------|--|--------------|

|                              |  |                   |
|------------------------------|--|-------------------|
| <b>Environmental hazards</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | No.<br>No.<br>No. |
|------------------------------|--|-------------------|

|                               |  |             |
|-------------------------------|--|-------------|
| <b>Additional information</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>- |
|-------------------------------|--|-------------|

### IMDG

|                                   |  |  |
|-----------------------------------|--|--|
| <b>UN number</b>                  | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | Not regulated.<br>Not regulated.<br>UN1824 |
| <b>UN proper shipping name</b>    | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>SODIUM HYDROXIDE, SOLUTION       |
| <b>Transport hazard class(es)</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>8                                |

|                      |  |              |
|----------------------|--|--------------|
| <b>Packing group</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>II |
|----------------------|--|--------------|

|                              |  |                   |
|------------------------------|--|-------------------|
| <b>Environmental hazards</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | No.<br>No.<br>No. |
|------------------------------|--|-------------------|

|                               |  |             |
|-------------------------------|--|-------------|
| <b>Additional information</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>- |
|-------------------------------|--|-------------|

### IATA

## Section 14. Transport information

|                                   |  |  |
|-----------------------------------|--|--|
| <b>UN number</b>                  | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)                                     | Not regulated.<br>Not regulated.<br>UN1824 |
| <b>UN proper shipping name</b>    | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)                                     | -<br>-<br>SODIUM HYDROXIDE, SOLUTION       |
| <b>Transport hazard class(es)</b> | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)                                     | -<br>-<br>8                                |
| <b>Packing group</b>              | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)                                     | -<br>-<br>II                               |
| <b>Environmental hazards</b>      | Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3)                                     | No.<br>No.<br>No.                          |
| <b>Additional information</b>     | <input checked="" type="checkbox"/> Reagent 1 (R1)<br>Reagent 2 (R2)<br>Reagent 3 (R3) | -<br>-<br>-                                |

**Special precautions for user** : Reagent 1 (R1)

Reagent 2 (R2)

Reagent 3 (R3)

### Transport within user's premises:

always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### Transport within user's premises:

always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### Transport within user's premises:

always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not applicable.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
Clean Water Act (CWA) 311: sodium hydroxide

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

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

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

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



## Section 15. Regulatory information

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

### SARA 302/304

#### Composition/information on ingredients

| Name                                  | %      | EHS  | SARA 302 TPQ |           | SARA 304 RQ |           |
|---------------------------------------|--------|------|--------------|-----------|-------------|-----------|
|                                       |        |      | (lbs)        | (gallons) | (lbs)       | (gallons) |
| <b>Reagent 1 (R1)</b><br>sodium azide | <0.025 | Yes. | 500          | -         | 1000        | -         |

**SARA 304 RQ** : 29047619 lbs / 13187619 kg

### SARA 311/312

**Classification** : SKIN CORROSION - Category 1B  
SERIOUS EYE DAMAGE - Category 1


#### Composition/information on ingredients

| Name                                      | %    | Classification   |
|---|------|--|
| <b>Reagent 1 (R1)</b><br>sodium azide     | ≤0.1 | ACUTE TOXICITY (oral) - Category 2<br>ACUTE TOXICITY (dermal) - Category 1 |
| <b>Reagent 3 (R3)</b><br>sodium hydroxide | ≤5   | SKIN CORROSION - Category 1A<br>SERIOUS EYE DAMAGE - Category 1            |

### State regulations

**Massachusetts** : The following components are listed: SODIUM HYDROXIDE  
**New York** : The following components are listed: Sodium hydroxide  
**New Jersey** : The following components are listed: SODIUM HYDROXIDE; CAUSTIC SODA  
**Pennsylvania** : The following components are listed: SODIUM HYDROXIDE

### California Prop. 65

 **WARNING:** This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

| Ingredient name                   | No significant risk level | Maximum acceptable dosage level |
|-----------------------------------|---------------------------|---------------------------------|
| <b>Reagent 1 (R1)</b><br>Methanol | -                         | Yes.                            |

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

## Section 16. Other information

### History

**Date of issue/Date of revision** : 7/27/2022

**Version** : 1.01

### Key to abbreviations

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

## Section 16. Other information

UN = United Nations N/A = Not available SGG = Segregation Group

▀ Indicates information that has changed from previously issued version.