

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

### SECTION 1. IDENTIFICATION

Product name : Biosolve™ Plus

Product code : 000000000062012436

Other means of identification : No data available

#### Manufacturer or supplier's details

Company : LANXESS Canada Co.  
Product Safety and Regulatory Affairs  
25 Erb Street  
Elmira, Canada N3B 2J3

Responsible Department : +1800LANXESS

Emergency telephone : In an emergency, CANUTEC may be called collect at:  
613.996.6666 (24 hrs)  
\*666 cellular (Canada only)  
Lanxess Emergency Phone (866) 673 6350.

#### Recommended use of the chemical and restrictions on use

Recommended use : Cleaning agent

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with the Hazardous Products Regulations

Skin corrosion : Category 1

Serious eye damage : Category 1

Skin sensitization : Category 1

Specific target organ toxicity - single exposure (Inhalation) : Category 1 (Respiratory Tract)

Specific target organ toxicity - repeated exposure (Inhalation) : Category 2 (Respiratory Tract)

#### GHS label elements

Hazard pictograms : 

Signal Word : Danger

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

Version  
3.0

Revision Date:  
07/18/2025

SDS Number:  
203000013996

Date of last issue: 05/10/2024  
Country / Language: CA / EN

|                          |   |
|--------------------------|---|
| Hazard Statements        | : H314 Causes severe skin burns and eye damage.<br>H317 May cause an allergic skin reaction.<br>H370 Causes damage to organs (Respiratory Tract) if inhaled.<br>H373 May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.  |
| Precautionary Statements | : <b>Prevention:</b><br>P260 Do not breathe mist or vapors.<br>P264 Wash skin thoroughly after handling.<br>P270 Do not eat, drink or smoke when using this product.<br>P272 Contaminated work clothing should not be allowed out of the workplace.<br>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.<br><br><b>Response:</b><br>P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.<br>P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.<br>P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.<br>P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.<br>P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.<br>P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.<br>P362 + P364 Take off contaminated clothing and wash it before reuse.<br><br><b>Storage:</b><br>P405 Store locked up.<br><br><b>Disposal:</b><br>P501 Dispose of contents/ container to an approved waste disposal plant. |

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

|                     |   |
|---------------------|---|
| Substance / Mixture | : Mixture   |
| Chemical nature     | : Solution of sodium hydroxide in water.<br>and<br>Sodium salts |

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

Version 3.0      Revision Date: 07/18/2025      SDS Number: 203000013996      Date of last issue: 05/10/2024  
Country / Language: CA / EN

### Components

| Chemical name  | CAS-No.     | Concentration (% w/w) |
|--|-------------|-----------------------|
| sodium hydroxide   | 1310-73-2   | $\geq 5 - < 10$       |
| tetrasodium ethylenediaminetetraacetate  | 64-02-8     | $\geq 1 - < 5$        |
| Alcohols, C9-11-iso-, C10-rich, ethoxylated  | 78330-20-8  | $\geq 1 - < 5$        |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts | 61789-40-0  | $\geq 1 - < 5$        |
| D-Glucopyranose, oligomeric, decyl octyl glycosides  | 68515-73-1  | $\geq 1 - < 5$        |
| D-Glucopyranose, oligomeric, C10-16-alkyl glycosides   | 110615-47-9 | $\geq 1 - < 5$        |

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

### SECTION 4. FIRST AID MEASURES

- General advice : No action shall be taken involving any personal risk or without suitable training.
- If inhaled : Get medical attention immediately.  
Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
If unconscious, place in recovery position and get medical attention immediately.  
Maintain open airway.  
If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- In case of skin contact : Get medical attention immediately.  
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.  
Continue to rinse for 30 minutes.  
Chemical burns must be treated promptly by a physician.  
Wash contaminated clothing before reuse.
- In case of eye contact : Get medical attention immediately.  
In case of contact, flush eyes with plenty of water for at least 30 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
Chemical burns must be treated promptly by a physician.
- If swallowed : Rinse mouth with water.  
Do not induce vomiting unless directed to do by medical personnel.  
Get medical attention if symptoms occur.

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

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

- Symptoms** :
- Eye: Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.
  - Skin: Reddening, burning, and possible permanent damage.
  - Skin: Causes irritation with symptoms of reddening, itching, and swelling.
  - Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
  - Inhalation: Causes respiratory tract burns.
  - Burns to the respiratory tract can cause swelling that could require a tracheotomy. Pulmonary edema may be delayed for several hours up to several days. Many hydrofluoric acid fatalities have been due to severe pulmonary edema. Toxic effects can also include depletion of calcium in the body, which can result in death if not treated.
- Effects** :
- May cause an allergic skin reaction.
  - Causes serious eye damage.
  - Causes damage to organs if inhaled.
  - May cause damage to organs through prolonged or repeated exposure if inhaled.
  - Causes severe burns.
- Protection of first-aiders** :
- No action shall be taken involving any personal risk or without suitable training.
  - It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** :
- Treat symptomatically.

### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** :
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
  - In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.
- Unsuitable extinguishing media** :
- None known.
- Specific hazards during fire fighting** :
- In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** :
- Metal oxides
  - Carbon dioxide (CO<sub>2</sub>)
  - Carbon monoxide
  - Nitrogen oxides (NO<sub>x</sub>)
  - Halogenated compounds

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

Further information : 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.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.  
If potential for exposure exists refer to Section 8 for specific personal protective equipment.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training.  
Put on appropriate personal protection equipment.  
Do not touch or walk through spilled material.  
Evacuate unnecessary personnel.  
Keep unnecessary and unprotected personnel from entering.  
Provide adequate ventilation.  
Do not breathe vapors, aerosols.

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : Stop leak if safe to do so.  
Move containers from spill area.  
Wash spillages into an effluent treatment plant or proceed as follows.  
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).  
Dispose of wastes in an approved waste disposal facility.  
Do not allow into the sewerage system, surface waters or groundwater or into the soil.  
Contaminated absorbent material may pose the same hazard as the spilled product.

### SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Remove contaminated clothing and protective equipment before entering eating areas.  
Workers should wash hands and face before eating, drinking and smoking.  
Put on appropriate personal protection equipment.  
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.  
Avoid inhalation, ingestion and contact with skin and eyes.

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

Version 3.0      Revision Date: 07/18/2025      SDS Number: 203000013996      Date of last issue: 05/10/2024  
Country / Language: CA / EN

Use only with adequate ventilation.  
Persons with a history of skin sensitization to this product should not be employed in any process in which this product is used.

Conditions for safe storage : 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.  
Keep containers 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 container to avoid environmental contamination.  
Empty containers retain residue and can be dangerous.  
Do not reuse container.  
Do not store near acids.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

| Components       | CAS-No.   | Value type<br>(Form of exposure) | Control parameters / Permissible concentration | Basis     |
|------------------|-----------|----------------------------------|--|-----------|
| sodium hydroxide | 1310-73-2 | C                                | 2 mg/m <sup>3</sup>                            | CA QC OEL |
|                  |           | C                                | 2 mg/m <sup>3</sup>                            | ACGIH     |

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.  
If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

#### Personal protective equipment

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.  
A NIOSH approved air purifying respirator with organic vapor cartridges and particulate prefilter can be used to minimize exposure.

Hand protection  
Material : Permeation resistant gloves.

Remarks : Impervious gloves

Eye protection : Tightly fitting safety goggles

Skin and body protection : Wear suitable protective clothing.  
Chemical resistant apron

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid, viscous

Physical state : liquid

Color : blue

Odor : strong, aliphatic

Odor Threshold : No data available

pH : 13 - 14

Melting point/ range : 0 °C

Boiling point/boiling range : 100 °C (1,013 hPa)

Flash point : > 93 °C

Method: Pensky-Martens., closed cup

Evaporation rate : No data available

Flammability (liquids) : No data available

Self-ignition : No data available

Burning number : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

---

|  |   |                                       |
|--|---|---------------------------------------|
| Vapor pressure                         | : | 21.33 hPa (25 °C)                     |
| Relative vapor density                 | : | No data available                     |
| Relative density                       | : | 1.13                                  |
| Density                                | : | 1.12 - 1.14 g/cm <sup>3</sup> (20 °C) |
| Solubility(ies)                        |   |                                       |
| Water solubility                       | : | No data available                     |
| Solubility in other solvents           | : | No data available                     |
| Partition coefficient: n-octanol/water | : | No data available                     |
| Ignition temperature                   | : | No data available                     |
| Decomposition temperature              | : | No data available                     |
| Viscosity                              |   |                                       |
| Viscosity, dynamic                     | : | No data available                     |
| Viscosity, kinematic                   | : | No data available                     |
| Explosive properties                   | : | No data available                     |
| Oxidizing properties                   | : | No data available                     |
| Metal corrosion rate                   | : | Not corrosive to metals.              |
| Particle size                          | : | No data available                     |

---

### SECTION 10. STABILITY AND REACTIVITY

|                                    |   |  |
|------------------------------------|---|--|
| Reactivity                         | : | No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability                 | : | The product is chemically stable.  |
| Possibility of hazardous reactions | : | No dangerous reaction known under conditions of normal use.                                |
| Conditions to avoid                | : | No specific data.  |
| Incompatible materials             | : | Incompatible with acids and bases.   |
| Hazardous decomposition products   | : | No decomposition if stored and applied as directed.  |



# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Inhalation  
Eye contact  
Skin contact  
Ingestion

#### Acute toxicity

Not classified due to lack of data.

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

#### Components:

##### **tetrasodium ethylenediaminetetraacetate:**

Acute oral toxicity : LD50 (Rat, male and female): 1,780 mg/kg  
Method: OECD Test Guideline 401  
GLP: No

Acute inhalation toxicity : LC50 (Rat): 1.5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 412  
GLP: Yes

##### **Alcohols, C9-11-iso-, C10-rich, ethoxylated:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

##### **1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts:**

Acute oral toxicity : LD50 (Rat, male and female): 1,500 mg/kg  
Method: OECD Test Guideline 401  
Remarks: Active ingredient

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Test substance: Aqueous solution  
Assessment: The substance or mixture has no acute dermal

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

toxicity  
Remarks: Dosage caused no mortality

### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401  
GLP: Yes  
Remarks: Dosage caused no mortality

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
GLP: Yes  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Dosage caused no mortality

### Skin corrosion/irritation

Causes severe burns.

#### Product:

Result : Corrosive after 4 hours or less of exposure

#### Components:

##### sodium hydroxide:

Species : Rabbit  
Method : OECD Test Guideline 435  
Result : Causes severe burns.  
GLP : No

##### tetrasodium ethylenediaminetetraacetate:

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation

##### 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts:

Species : Humans  
Result : Irritating to skin.  
Test substance : Aqueous solution

Species : Rabbit  
Result : Irritating to skin.  
Test substance : Aqueous solution

##### D-Glucopyranose, oligomeric, decyl octyl glycosides:

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

GLP : Yes

### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides:

|         |                           |
|---------|---------------------------|
| Species | : Rabbit                  |
| Method  | : OECD Test Guideline 404 |
| Result  | : Irritating to skin.     |
| GLP     | : Yes                     |

### Serious eye damage/eye irritation

Causes serious eye damage.

#### Product:

Result : Corrosive

#### Components:

##### sodium hydroxide:

|         |                                   |
|---------|-----------------------------------|
| Species | : Rabbit                          |
| Result  | : Risk of serious damage to eyes. |
| Method  | : OECD Test Guideline 405         |

##### tetrasodium ethylenediaminetetraacetate:

|         |                                   |
|---------|-----------------------------------|
| Species | : Rabbit                          |
| Result  | : Risk of serious damage to eyes. |
| Method  | : OECD Test Guideline 405         |

##### Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Result : Risk of serious damage to eyes.

##### 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts:

|                |                                   |
|----------------|-----------------------------------|
| Species        | : Rabbit                          |
| Result         | : Risk of serious damage to eyes. |
| Method         | : Draize Test                     |
| Test substance | : Aqueous solution                |

##### D-Glucopyranose, oligomeric, decyl octyl glycosides:

|         |                                   |
|---------|-----------------------------------|
| Species | : Rabbit                          |
| Result  | : Risk of serious damage to eyes. |
| Method  | : OECD Test Guideline 405         |
| GLP     | : Yes                             |

##### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides:

|         |                                   |
|---------|-----------------------------------|
| Species | : Rabbit                          |
| Result  | : Risk of serious damage to eyes. |
| Method  | : OECD Test Guideline 405         |
| GLP     | : Yes                             |

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

### Respiratory or skin sensitization

#### Skin sensitization

May cause an allergic skin reaction.

#### Respiratory sensitization

Not classified due to lack of data.

#### Components:

##### sodium hydroxide:

|            |   |                                    |
|------------|---|------------------------------------|
| Species    | : | Human                              |
| Assessment | : | Does not cause skin sensitization. |
| GLP        | : | No                                 |

##### tetrasodium ethylenediaminetetraacetate:

|                    |   |  |
|--------------------|---|--|
| Routes of exposure | : | Skin contact                                       |
| Species            | : | Guinea pig   |
| Method             | : | OECD Test Guideline 406                            |
| Result             | : | Did not cause sensitization on laboratory animals. |

##### 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts:

|                    |   |  |
|--------------------|---|--|
| Test Type          | : | Patch Test                               |
| Routes of exposure | : | Skin contact                             |
| Species            | : | Humans                                   |
| Result             | : | May cause sensitization by skin contact. |
| Test substance     | : | Aqueous solution                         |

##### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides:

|                    |   |                                    |
|--------------------|---|------------------------------------|
| Test Type          | : | Maximization Test                  |
| Routes of exposure | : | Skin contact                       |
| Species            | : | Guinea pig                         |
| Method             | : | OECD Test Guideline 406            |
| Result             | : | Does not cause skin sensitization. |
| GLP                | : | Yes                                |

### Germ cell mutagenicity

Not classified due to lack of data.

#### Components:

##### sodium hydroxide:

|                       |   |   |
|-----------------------|---|---|
| Genotoxicity in vitro | : | Test Type: Ames test<br>Test system: Salmonella typhimurium<br>Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 471<br>Result: negative |
| Genotoxicity in vivo  | : | Test Type: Micronucleus test<br>Species: Mouse<br>Application Route: Intraperitoneal  |

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

Method: OECD Test Guideline 474  
Result: negative

### tetrasodium ethylenediaminetetraacetate:

Genotoxicity in vitro : Test Type: Ames test  
Test system: Bacteria  
Metabolic activation: with and without metabolic activation  
Result: negative

### 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts:

Genotoxicity in vitro : Test Type: Mutagenicity (Salmonella typhimurium - reverse mutation assay)  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides:

Genotoxicity in vitro : Test Type: Mutagenicity (Escherichia coli - reverse mutation assay)  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: Yes

Test Type: Chromosome aberration test in vitro  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative  
GLP: Yes

Test Type: In vitro mammalian cell gene mutation test  
Test system: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative  
GLP: Yes  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse (male)  
Cell type: Bone marrow  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: negative  
GLP: Yes

### Carcinogenicity

Not classified due to lack of data.

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

### Reproductive toxicity

Not classified due to lack of data.

### Components:

#### **1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts:**

Effects on fetal development : Test Type: Pre-natal  
Species: Rat, female  
Application Route: Oral  
Duration of Single Treatment: 15 d  
General Toxicity Maternal: NOAEL: 95 mg/kg bw/day  
Developmental Toxicity: NOAEL: 286 mg/kg bw/day  
Method: OECD Test Guideline 414  
Remarks: The results refer to active ingredient.

#### **D-Glucopyranose, oligomeric, C10-16-alkyl glycosides:**

Effects on fertility : Test Type: reproductive and developmental toxicity study  
Species: Rat, male and female  
Application Route: Oral  
General Toxicity Parent: NOAEL: 1,000 mg/kg bw/day  
Fertility: NOAEL: 1,000 mg/kg bw/day  
Method: OECD Test Guideline 421  
Result: No adverse effects.

Effects on fetal development : Test Type: Pre-natal  
Species: Rat, female  
Application Route: Oral  
Duration of Single Treatment: 20 d  
General Toxicity Maternal: NOAEL: 1,000 mg/kg bw/day  
Developmental Toxicity: NOAEL: 1,000 mg/kg bw/day  
Method: OECD Test Guideline 414  
Result: No adverse effects.  
GLP: Yes

### **STOT-single exposure**

Causes damage to organs (Respiratory Tract) if inhaled.

### Product:

Routes of exposure : Inhalation  
Target Organs : Respiratory Tract  
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 1.

### **STOT-repeated exposure**

May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

### Components:

#### **tetrasodium ethylenediaminetetraacetate:**

Routes of exposure : Inhalation

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

Target Organs : Respiratory Tract  
Assessment : May cause damage to organs through prolonged or repeated exposure.

### Repeated dose toxicity

#### Components:

##### **1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts:**

Species : Rat, male and female  
NOAEL : 500 mg/kg  
Application Route : Oral  
Number of exposures : daily  
Method : OECD Test Guideline 407

Species : Rat, male and female  
NOAEL : 250 mg/kg  
Application Route : Oral  
Number of exposures : daily  
Method : OECD Test Guideline 408

##### **D-Glucopyranose, oligomeric, C10-16-alkyl glycosides:**

Species : Rat, male and female  
NOAEL : 1,000 mg/kg  
Application Route : Oral  
Exposure time : 90 d  
Number of exposures : daily  
Method : Regulation (EC) No. 440/2008, Annex, B.26  
GLP : Yes  
Remarks : Subacute toxicity

### Aspiration toxicity

Not classified due to lack of data.

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **sodium hydroxide:**

Toxicity to fish : LC50 (Trout): 45.4 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
aquatic invertebrates Exposure time: 48 h

### Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

### tetrasodium ethylenediaminetetraacetate:

|  |   |
|--|---|
| Toxicity to fish   | : LC50 (Lepomis macrochirus (Bluegill sunfish)): 121 mg/l<br>Exposure time: 96 h<br>Remarks: Fresh water  |
| Toxicity to daphnia and other aquatic invertebrates                    | : EC50 (Daphnia magna (Water flea)): 610 mg/l<br>Exposure time: 24 h<br>Method: ISO 6341<br>Remarks: Fresh water  |
| Toxicity to algae/aquatic plants                                       | : ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l<br>Exposure time: 72 h<br>Remarks: Fresh water<br><br>NOEC (Desmodesmus subspicatus (green algae)): 100 mg/l<br>Exposure time: 72 h<br>Remarks: Fresh water |
| Toxicity to fish (Chronic toxicity)                                    | : NOEC (Danio rerio (zebra fish)): > 25.7 mg/l<br>Exposure time: 35 d<br>Method: OECD Test Guideline 210<br>Remarks: Fresh water  |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : NOEC (Daphnia magna (Water flea)): 25 mg/l<br>Exposure time: 21 d<br>Method: OECD Test Guideline 211<br>Remarks: Fresh water  |

### 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts:

|   |  |
|---|--|
| Toxicity to fish                                    | : LC50 (Brachydanio rerio (zebrafish)): 2 mg/l<br>Exposure time: 96 h<br>Remarks: Active ingredient  |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Daphnia magna (Water flea)): 6.4 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202<br><br>EC50 (Daphnia magna (Water flea)): 1.9 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202         |
| Toxicity to algae/aquatic plants                    | : EC50 (Scenedesmus subspicatus): 9.86 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>GLP: Yes<br><br>NOEC (Scenedesmus subspicatus): 3.86 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201 |



# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|                |                              |                             |   |
|----------------|------------------------------|-----------------------------|---|
| Version<br>3.0 | Revision Date:<br>07/18/2025 | SDS Number:<br>203000013996 | Date of last issue: 05/10/2024<br>Country / Language: CA / EN |
|----------------|------------------------------|-----------------------------|---|

GLP: Yes

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.16 mg/l  
Exposure time: 28 d  
Method: OECD Test Guideline 204  
Remarks: The results refer to active ingredient.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.9 mg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 202

### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 2.95 mg/l  
Exposure time: 96 h  
GLP: Yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7 mg/l  
Exposure time: 48 h  
GLP: Yes

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 12.5 mg/l  
Exposure time: 72 h  
GLP: Yes  
  
EC10 (Desmodesmus subspicatus (green algae)): 4.15 mg/l  
Exposure time: 72 h  
GLP: Yes

Toxicity to fish (Chronic toxicity) : NOEC (Danio rerio (zebra fish)): 1.8 mg/l  
Exposure time: 28 Days  
Method: OECD Test Guideline 204  
GLP: Yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia magna (Water flea)): 1.76 mg/l  
Exposure time: 21 Days  
Method: OECD Test Guideline 202  
GLP: Yes

Toxicity to microorganisms : EC0: 5,000 mg/l  
Exposure time: 16 h  
Method: DIN 38 412 Part 8  
GLP: Yes

### Persistence and degradability

#### Components:

#### **sodium hydroxide:**

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

#### **tetrasodium ethylenediaminetetraacetate:**

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 10 %  
Exposure time: 28 d  
Method: OECD Test Guideline 302B

### Alcohols, C9-11-iso-, C10-rich, ethoxylated:

Biodegradability : Result: Readily biodegradable.

### 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts:

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301B

### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides:

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301D  
GLP: Yes

### Bioaccumulative potential

#### Components:

#### tetrasodium ethylenediaminetetraacetate:

Bioaccumulation : Bioconcentration factor (BCF): 1.8

Partition coefficient: n-octanol/water : log Pow: -13.17 (25 °C)

### 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts:

Partition coefficient: n-octanol/water : log Pow: -1.28  
Method: Calculated value

### D-Glucopyranose, oligomeric, C10-16-alkyl glycosides:

Partition coefficient: n-octanol/water : log Pow: <= -0.07 (20 °C)  
Method: Calculated value

### Mobility in soil

No data available

### Other adverse effects

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : The generation of waste should be avoided or minimized wherever possible.

# SAFETY DATA SHEET

according to the Hazardous Products Regulations

## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

This material and its container must be disposed of in a safe way.

Empty containers retain product residue; observe all precautions for product.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### IATA-DGR

|                      |                             |
|----------------------|-----------------------------|
| UN/ID No.            | : UN 1824                   |
| Proper shipping name | : Sodium hydroxide solution |
| Class                | : 8                         |
| Packing group        | : II                        |
| Labels               | : 8                         |
|                      | :                           |



|                                      |                |
|--------------------------------------|----------------|
| Packing instruction (cargo aircraft) | : 855: 30.00 L |
|--------------------------------------|----------------|

|  |               |
|--|---------------|
| Packing instruction (passenger aircraft) | : 851: 1.00 L |
|--|---------------|

##### IMDG-Code

|                         |                             |
|-------------------------|-----------------------------|
| UN number               | : UN 1824                   |
| UN proper shipping name | : SODIUM HYDROXIDE SOLUTION |

|               |      |
|---------------|------|
| Class         | : 8  |
| Packing group | : II |
| Labels        | : 8  |
|               | :    |



|                  |            |
|------------------|------------|
| EmS Code         | : F-A, S-B |
| Marine pollutant | : no       |

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### Domestic regulation

##### TDG

|                      |                             |
|----------------------|-----------------------------|
| UN number            | : UN 1824                   |
| Proper shipping name | : SODIUM HYDROXIDE SOLUTION |

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

Class : 8  
Packing group : II  
Labels : 8  
:



ERG Code : 154  
Marine pollutant : no  
Product classified per Transportation of Dangerous Goods Regulations sections 2.40-2.42 (Class 8).

### Hazard and Handling Notes

Corrosive.

Keep away from foodstuffs, acids and alkalis

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## SECTION 15. REGULATORY INFORMATION

TSCA : All substances listed as active on the TSCA inventory  
DSL : All components of this product are on the Canadian DSL

### Canadian lists

No substances are subject to a Significant New Activity Notification.

# SAFETY DATA SHEET

according to the Hazardous Products Regulations

## Biosolve™ Plus

Version  
3.0

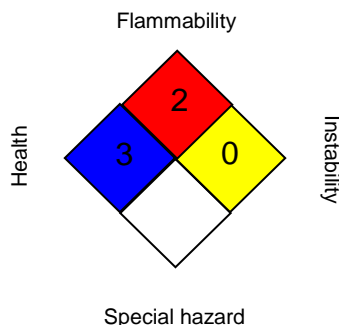
Revision Date:  
07/18/2025

SDS Number:  
203000013996

Date of last issue: 05/10/2024  
Country / Language: CA / EN

### Further information

#### NFPA:



#### HMIS® IV:

|                 |   |   |
|-----------------|---|---|
| HEALTH          | * | 4 |
| FLAMMABILITY    |   | 2 |
| PHYSICAL HAZARD |   | 0 |

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

LANXESS' method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS as a customer service.

## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

|               |   |   |
|---------------|---|---|
| ACGIH         | : | USA. ACGIH Threshold Limit Values (TLV)   |
| CA QC OEL     | : | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| ACGIH / C     | : | Ceiling limit   |
| CA QC OEL / C | : | Ceiling   |

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships;

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Biosolve™ Plus

|         |                |              |                                |
|---------|----------------|--------------|--------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 05/10/2024 |
| 3.0     | 07/18/2025     | 203000013996 | Country / Language: CA / EN    |

MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 07/18/2025  
Date format : mm/dd/yyyy

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered to be a guidance for processing and does not contain any warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.

Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.

CA / EN