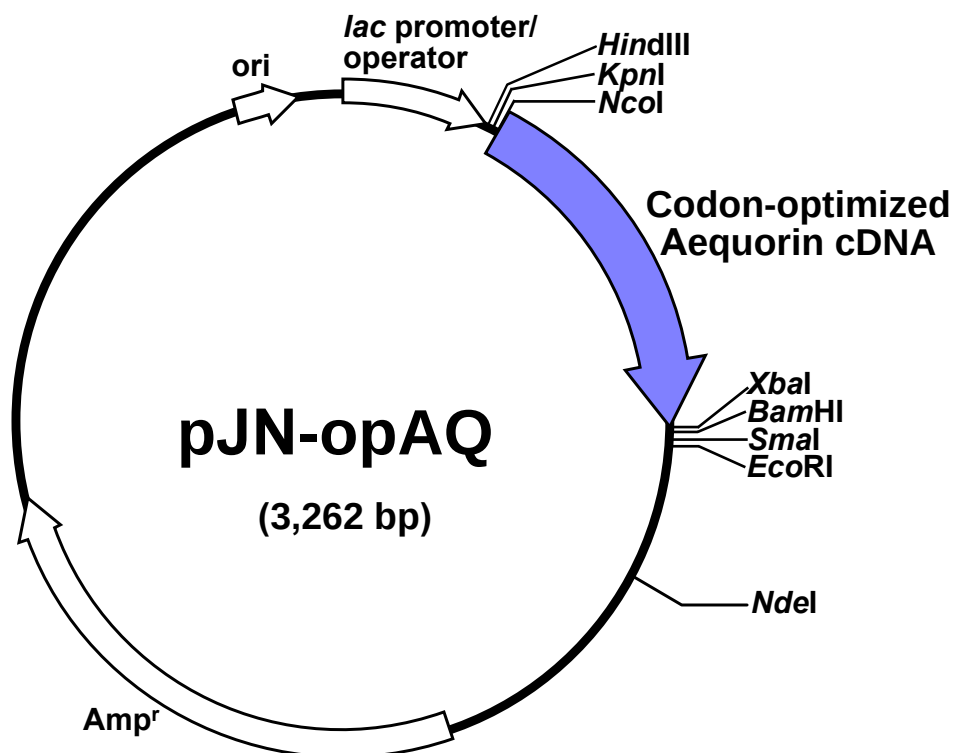


| pJN-opAQ                                 |                                                               |
|------------------------------------------|---------------------------------------------------------------|
| <b>Cat. No.</b>                          | P-001                                                         |
| <b>Gene/Insert name:</b>                 | Codon-optimized Aequorin (opAQ)                               |
| <b>Vector backbone:</b>                  | pUC-JN                                                        |
| <b>Vector type:</b>                      | <i>E. coli</i>                                                |
| <b>Backbone size w/o insert (bp):</b>    | 2,680                                                         |
| <b>Bacterial resistance:</b>             | Ampicillin                                                    |
| <b>Growth strain:</b>                    | JM83                                                          |
| <b>Growth temperature (°C):</b>          | 37                                                            |
| <b>Growth instructions:</b>              | pJN-opAQ is resistant to ampicillin (50 µg/mL)                |
| <b>High or low copy:</b>                 | High copy                                                     |
| <b>Vector map:</b>                       | <a href="#">pJN-opAQ</a>                                      |
| <b>Coding sequence:</b>                  | <a href="#">Nucleotide sequence &amp; Amino acid sequence</a> |
| <b>Plasmid sequence:</b>                 | <a href="#">pJN-opAQ (3,262 bp)</a>                           |
| <b>Restriction enzyme list:</b>          | <a href="#">Restriction enzyme sites of pJN-opAQ</a>          |
| <b>GenBank Accession No.:</b>            | <a href="#">LC006263</a>                                      |
| <b>Size:</b>                             | 10 µg                                                         |
| <b>Constituents:</b>                     | 10 mM Tris-HCl (pH 7.6) – 1 mM EDTA                           |
| <b>Terms and Licenses:</b>               | MTA                                                           |
| Laboratory Reagent For Research Use Only |                                                               |

# Ca<sup>2+</sup>-Binding Photoprotein, Aequorin

Cat. No. P-001

**Name:** pJN-opAQ  
**Insert:** Codon-optimized Aequorin cDNA  
**Vector:** pUC-JN (pUC9 derivative)



• DNA fragment:

<sup>M    V    K    L    - - -    A    V    P    \*\*\*</sup>  
aagcttggtaccacc ATG-GTC-AAG-CTG-.....GCC-GTC-CCC-TAA tctaga  
*HindIII* (Kozak) *XbaI*

• Feature for pJN-opAQ:

| Residue     | Source    | Comments                                      |
|-------------|-----------|-----------------------------------------------|
| 1-245       | 1-245     | pUC-JN backbone (pUC9 derivative)             |
| 1-230       | 1-230     | <i>lac</i> promoter/operator                  |
| 255-824     | 1-570     | Codon-optimized Aequorin ORF                  |
| 828-3,262   | 294-2,728 | pUC-JN backbone (pUC9 derivative)             |
| 3,089       | 2,555     | ori: Origin of replication                    |
| 1,461-2,321 | 927-1,787 | Amp <sup>r</sup> : Ampicillin resistance gene |

Ref.

- 1) Aequorin amino acid seq. & cDNA seq.: GenBank Accession No. AAA27719  
Inouye, S. *et al. Proc. Natl. Acad. Sci. USA* (1985) 82: 3154-3158.
- 2) Codon-optimized Aequorin DNA seq.: GenBank Accession No. LC006263  
Inouye, S. *et al. Protein Expr. Purif.* (2015) 109: 47-54

**Gene coding region (ORF: Codon-optimized Aequerin)****Nucleotide sequence**

AAGCTTGGTACCACC**ATGGTCAAGCTGACCAGCGACTTCGACAACCCAGATGGATCGGCAGACACAAGC**  
**ACATGTTCAACTTCCTGGACGTCAACCACAACGGCAAGATCAGCCTGGACGAGATGGTCTACAAGGCCAG**  
**CGACATCGTCATCAATAACCTGGGCGCCACCCCGAGCAGGCCAAGAGACACAAGGACGCCGTCGAGGCC**  
**TTCTTCGGCGGCGCCGGCATGAAGTACGGCGTCGAGACCGACTGGCCCGCCTACATCGAGGGCTGGAAGA**  
**AGCTGGCCACCGATGAGCTGGAGAAGTACGCCAAGAACGAGCCACCCTGATCAGAATCTGGGGCGACGC**  
**CCTGTTTCGACATCGTGGACAAGGACCAGAACGGCGCCATCACCTGGACGAGTGGAAGGCCTACACCAAG**  
**GCCGCCGGCATCATCCAGAGCAGCGAGGACTGCGAGGAGACCTTCAGAGTCTGCGACATCGATGAGAGCG**  
**GCCAGCTGGACGTGGACGAGATGACCAGACAGCACCTGGGCTTCTGGTACACAATGGACCCCGCCTGCGA**  
**GAAGCTGTACGGCGGCGCCGTCCCTAA**TCTAGA

**Amino acid sequence**

KLGTT**MVKLTSDFDNPRWIGRHKHMFNFDVNHNGKISLDEMVKASDIVINN LGATPEQAKRHKDAVEA**  
**FFGGAGMKYGVETDWPAYIEGWKKLATDELEKYAKNEPTLIRIWGDALFDIVDKDQNGAITLDEWKAYTK**  
**AAGIIQSSDCEETFRVCDIDESGQLDDEMTRQHLGFWYTMPACEKLYGGAVP\***SR

**pJN-opAQ (3,262 bp)**

GCGCCCAATACGCAAAACCGCCTCTCCCCGCGCGTTGGCCGATTCAATTAATGCAGCTGGCAGCAGAGGTTT  
 CCCGACTGGAAAGCGGGCAGTGAGCGCAACGCAATTAATGTGAGTTAGCTCACTCATTAGGCACCCAGG  
 CTTTACACTTTATGCTTCCGGCTCGTATGTTGTGTGGAATTGTGAGCGGATAACAATTTACACAGGAAA  
 CAGCTATGACCATGATTACGCAAGCTGCAAGCTTGGTACCACC**ATGGTCAAGCTGACCAGCGACTTCGA**  
**CAACCCAGATGGATCGGCAGACACAAGCACATGTTCAACTTCCTGGACGTCAACCACAACGGCAAGATC**  
**AGCCTGGACGAGATGGTCTACAAGGCCAGCGACATCGTCATCAATAACCTGGGCGCCACCCCGAGCAGG**  
**CCAAGAGACACAAGGACGCCGTCGAGGCCCTTCTTCGGCGGCGCCGGCATGAAGTACGGCGTCGAGACCGA**  
**CTGGCCCGCCTACATCGAGGGCTGGAAGAAGCTGGCCACCGATGAGCTGGAGAAGTACGCCAAGAACGAG**  
**CCCACCCTGATCAGAATCTGGGGCGACGCCCTGTTTCGACATCGTGGACAAGGACCAGAACGGCGCCATCA**  
**CCCTGGACGAGTGGAAGGCCCTACACCAAGGCCGCCGGCATCATCCAGAGCAGCGAGGACTGCGAGGAGAC**  
**CTTCAGAGTCTGCGACATCGATGAGAGCGGCCAGCTGGACGTGGACGAGATGACCAGACAGCACCTGGGC**  
**TTCTGGTACACAATGGACCCCGCCTGCGAGAAGCTGTACGGCGGCGCCGTCCCC**TAA**TCTAGAGGATCCC**  
 CGGGAATTGCGGAATTCGCAATTCCTGAGCGTCGTTTTACAACGTCGTGACTGGGAAAACCTGGCGT  
 TACCAACTTAATCGCCTTGACGACATCCCCCTTCGCCAGCTGGCGTAATAGCGAAGAGGCCCGCACC  
 GATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGCGCTGATGCGGTATTTTCTCCTTTACGC  
 ATCTGTGCGGTATTTTACACCGCATATGGTGCACTCTCAGTACAATCTGCTCTGATGCCGCATAGTTAAG  
 CCAGCCCCGACACCCGCAACACCCGCTGACGCGCCCTGACGGGCTTGTCTGCTCCCGGCATCCGCTTAC  
 AGACAAGCTGTGACCGTCTCCGGGAGCTGCATGTGTGAGAGTTTTTACCCTCATCACCGAAACGCGCGA  
 GACGAAAGGGCCTCGTGATACGCTATTTTTATAGGTTAATGTCATGATAATAATGGTTTTCTTAGACGTC  
 AGGTGGCACTTTTCCGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTTCTAAATACATTCAAATATG  
 TATCCGCTCATGAGACAATAACCTGATAAATGCTTCAATAATATTGAAAAAGGAAGAGT**ATGAGTATTC**  
**AACATTTCCGTGTCGCCCTTATTCCCTTTTTTTCGGGCATTTTGCCTTCCTGTTTTTGTCCACCCAGAAAC**  
**GCTGGTGAAAGTAAAGATGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATCGAACTGGATCTCAAC**  
**AGCGGTAAGATCCTTGAGAGTTTTTCCGCCGAAGAACGTTTTCCAATGATGAGCACTTTTAAAGTTCTGC**  
**TATGTGGCGCGGTATTATCCCGTATTGACGCCGGGCAAGAGCAACTCGGTCGCCGCATACACTATTCTCA**  
**GAATGACTTGGTTGAGTACTCACCAGTCACAGAAAAGCATCTTACGGATGGCATGACAGTAAGAGAATTA**  
**TGCAGTGCTGCCATAACCATGAGTGATAACACTGCGGCCAACTTACTTCTGACAACGATCGGAGGACCGA**  
**AGGAGCTAACCGCTTTTTTGCACAACATGGGGGATCATGTAACTCGCCCTTGATCGTTGGGAACCGGAGCT**  
**GAATGAAGCCATACCAACGACGAGCGTGACACCACGATGCCGTGAGCAATGGCAACAACGTTGCGCAAA**  
**CTATTAAGTGGGCAACTACTTACTCTAGCTTCCCGCAACAATTAATAGACTGGATGGAGGCGGATAAAG**  
**TTGCAGGACCACTTCTGCGCTCGGCCCTTCCGGCTGGCTGGTTTTATTGCTGATAAATCTGGAGCCGGTGA**  
**GCGTGGGTCTGCGGTATCATTGCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTATCTAC**  
**ACGACGGGGAGTCAGGCAACTATGGATGAACGAAATAGACAGATCGCTGAGATAGGTGCCCTCACTGATTA**  
**AGCATTGGTA**ACTGTGACACCAAGTTTACTCATATATACCTTTAGATTGATTTAAAACTTCATTTTTAATT  
 TAAAAGGATCTAGGTGAAGATCCTTTTTTGATAATCTCATGACCAAAATCCCTTAACGTGAGTTTTTCGTTT  
 CACTGAGCGTCAGACCCCGTAGAAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTCTGCGCGTAATCT  
 GCTGCTTGCAAAACAAAAAACACCGCTACCAGCGGTGGTTTTGTTTGGCGGATCAAGAGCTACCAACTCT  
 TTTTCCGAAGGTAAGTGGCTTACGAGAGCGCAGATACCAAACTACTGCTTCTAGTGTAGCCGTAGTTA  
 GGCCACCACTTCAAGAACTCTGTAGCACCAGCTACATACCTCGCTCTGCTAATCCTGTTACCAAGTGGCTG  
 CTGCCAGTGGCGATAAGTCGTGCTTACCAGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCG  
 GTCGGGCTGAACGGGGGTTCTGTGCACACAGCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATAC  
 CTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCG  
 GCAGGGTCCGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGAAACGCCTGGTATCTTTATAGTCTGT  
 CGGGTTTCCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGA  
 AACGCCAGCAACGCGGCCCTTTTTACGGTTTCTGGCCTTTTGCTGGCCTTTTTGCTCACATGTTCTTTCTG  
 CGTTATCCCTGATTCTGTGGATAACCGTATTACCGCTTTGAGTGAGCTGATACCGCTCGCCGCAGCCG  
 AACGACCGAGCGCAGCGAGTCAAGTGAGCGAGGAAGCGGAAGA

| Residue            | Source    | Comments                                           |
|--------------------|-----------|----------------------------------------------------|
| 1-245              | 1-245     | pUC-JN backbone(pUC9 derivative)                   |
| <b>1-230</b>       | 1-230     | <b>lac promoter/operator</b>                       |
| <b>255-824</b>     | 1-570     | <b>Codon-optimized Aequorin ORF</b>                |
| 828-3,262          | 294-2,728 | pUC-JN backbone(pUC9 derivative)                   |
| 3,089              | 2,555     | ori: Origin of replication                         |
| <b>1,461-2,321</b> | 927-1,787 | <b>Amp<sup>r</sup>: Ampicillin resistance gene</b> |

**Restriction enzyme sites of pJN-opAQ**

Indication Mode: 5' Terminal of the Site

| Enzyme Name | Sequence  | Count | Start Position |
|-------------|-----------|-------|----------------|
| AccI        | GT!MKAC   | 1     | 366            |
| ApaI        | GGGCC!C   | 0     |                |
| Asp718I     | G!GTACC   | 1     | 246            |
| BamHI       | G!GATCC   | 1     | 834            |
| BclI        | T!GATCA   | 1     | 568            |
| BglII       | A!GATCT   | 0     |                |
| EcoRI       | G!AATTC   | 1     | 852            |
| EcoRV       | GAT!ATC   | 0     |                |
| HindIII     | A!AGCTT   | 1     | 240            |
| KpnI        | GGTAC!C   | 1     | 246            |
| MluI        | A!CGCGT   | 0     |                |
| NcoI        | C!CATGG   | 1     | 253            |
| NdeI        | CA!TATG   | 1     | 1073           |
| NheI        | G!CTAGC   | 0     |                |
| NotI        | GC!GGCCGC | 0     |                |
| PstI        | CTGCA!G   | 0     |                |
| SacI        | GAGCT!C   | 0     |                |
| SalI        | G!TCGAC   | 0     |                |
| ScaI        | AGT!ACT   | 1     | 1765           |
| SmaI        | CCC!GGG   | 1     | 839            |
| XbaI        | T!CTAGA   | 1     | 828            |
| XhoI        | C!TCGAG   | 0     |                |

| Supplier                                                                                                                                                                | Contact us                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>JNC CORPORATION</b><br>Shin Otemachi Bldg. 9F<br>2-2-1 Otemachi, Chiyoda-ku, Tokyo 100-8105<br>URL <a href="http://www.jnc-corp.co.jp">http://www.jnc-corp.co.jp</a> | <b>JNC Corporation, Yokohama Research Center</b><br>5-1 Okawa, Kanazawa-ku, Yokohama, Japan 236-8605<br>Tel: 045-786-5501 Fax: 045-786-5511<br>E-mail: <a href="mailto:jphoton@jnc-corp.co.jp">jphoton@jnc-corp.co.jp</a> |

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

|              |          |
|--------------|----------|
| Product name | pJN-opAQ |
| Product code | P-001    |

|                                          |                                                                                                                                                  |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Recommended uses and restrictions on use | For research purposes                                                                                                                            |
| Manufacturer                             | JNC CORPORATION, Yokohama research Center<br>5-1, Okawa, Kanazawa-ku, Yokohama 236-8605, Japan<br>Phone: +81-45-786-5501<br>Fax: +81-45-786-5511 |
| Supplier                                 | JNC CORPORATION<br>Shin Otemachi Bldg., 2-2-1 Otemachi, Chiyoda-ku, Tokyo<br>100-8105<br>Phone: +81-3-3243-6330<br>Fax: +81-3-3243-6363          |
| Emergency telephone number               | +81-45-786-5501                                                                                                                                  |

## Section 2: HAZARDS IDENTIFICATION

## GHS classification

Classification of the substance or mixture

- Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

## Pictograms

- none

## Signal word

- none

## Hazard statements

- Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

## Precautionary statements-(Prevention)

- Not applicable

## Precautionary statements-(Response)

- Not applicable

## Precautionary statements-(Storage)

- Not applicable

## Precautionary statements-(Disposal)

- Not applicable

## Others

## Other hazards

- Not available

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

## Mixture

| Chemical Name | Weight-% | Molecular weight | EC No.    | ISHL No. | CAS No. |
|---------------|----------|------------------|-----------|----------|---------|
| EDTA          | <0.1%    | 292.24           | 200-449-4 | N/A      | 60-00-4 |

## Section 4: FIRST AID MEASURES

### Inhalation

Remove to fresh air. If symptoms persist, call a physician.

### Skin contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

### Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

### Ingestion

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

### Protection of first-aiders

Use personal protective equipment as required.

## Section 5: FIRE FIGHTING MEASURES

### Suitable extinguishing media

Water spray (fog), carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder, Sand

### Unsuitable extinguishing media

No information available

### Special extinguishing method

No information available

### Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

### Protection of fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

### Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

### Methods and materials for contaminant and methods and materials for cleaning up

Do not touch spilled material without suitable protection(See section 8). After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

### Recovery, neutralization

No information available

### Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

### Handling

#### Technical measures

Avoid contact with strong oxidizing agents. Use with local exhaust ventilation.

#### Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

**Safety handling precautions**

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

**Storage**
**Safe storage conditions**

**Storage conditions** Container protected from light, and store tightly closed in freezer (-20°C).

**Safe packaging material**

Glass or Plastic container

**Incompatible substances**

Strong oxidizing agents

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls**

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

**Exposure limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Personal protective equipment**
**Respiratory protection**

Dust mask

**Hand protection**

Protection gloves

**Eye protection**

protective eyeglasses or chemical safety goggles

**Skin and body protection**

Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**Form**
**Color**

Colorless

**Appearance**

No data available

**Odor**

No data available

**pH**

No data available

**Melting point/freezing point**

No data available

**Boiling point, initial boiling point and boiling range**

No data available

**Flash point**

No data available

**Evaporation rate:**

No data available

**Flammability (solid, gas):**

No data available

**Upper/lower flammability or explosive limits**

No data available

**Lower :**

No data available

**Vapour pressure**

No data available

**Vapour density**

No data available

**Specific Gravity / Relative density**

No data available

**Solubilities**

Water: soluble

**n-Octanol/water partition coefficient:(log Pow)**

No data available

**Auto-ignition temperature:**

No data available

**Decomposition temperature:**

No data available

**Viscosity (coefficient of viscosity)**

No data available

**Dynamic viscosity**

No data available



## Section 10: STABILITY AND REACTIVITY

### Stability

**Stability**

Stable under the recommended storage condition

**Reactivity**

No data available

**Hazardous reactions**

None under normal processing

**Conditions to avoid**

Extremes of temperature and direct sunlight

**Incompatible materials**

Strong oxidizing agents

**Hazardous decomposition products**Carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>)

## Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity**

No data available

**Skin irritation/corrosion**

No data available

**Serious eye damage/ irritation**

No data available

**Respiratory or skin sensitization**

No data available

**Reproductive cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**STOT-single exposure**

No data available

**STOT-repeated exposure**

No data available

**Aspiration hazard**

No data available

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

No information available

**Other data**

No data available

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available

**Mobility in soil**

No information available

**Hazard to the ozone layer**

No information available

## Section 13: DISPOSAL CONSIDERATIONS

**Waste from residues**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated container and contaminated packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14: TRANSPORT INFORMATION

|                                                                          |                          |
|--------------------------------------------------------------------------|--------------------------|
| <b>ADR/RID</b>                                                           | Not regulated            |
| UN number                                                                | -                        |
| Proper shipping name:                                                    |                          |
| UN classification                                                        |                          |
| Subsidiary hazard class                                                  |                          |
| Packing group                                                            |                          |
| Marine pollutant                                                         | Not applicable           |
| <b>IMDG</b>                                                              | Not regulated            |
| UN number                                                                | -                        |
| Proper shipping name:                                                    |                          |
| UN classification                                                        |                          |
| Subsidiary hazard class                                                  |                          |
| Packing group                                                            |                          |
| Marine pollutant (Sea)                                                   | Not applicable           |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | No information available |
| <b>IATA</b>                                                              | Not regulated            |
| UN number                                                                | -                        |
| Proper shipping name:                                                    |                          |
| UN classification                                                        |                          |
| Subsidiary hazard class                                                  |                          |
| Packing group                                                            |                          |
| Environmentally Hazardous Substance                                      | Not applicable           |

## Section 15: REGULATORY INFORMATION

### International Inventories

|               |   |
|---------------|---|
| EINECS/ELINCS | - |
| TSCA          | - |

### Japanese regulations

|                                                                                       |                |
|---------------------------------------------------------------------------------------|----------------|
| Fire Service Act                                                                      | Not applicable |
| Poisonous and Deleterious Substances Control Law                                      | Not applicable |
| Industrial Safety and Health Act                                                      | Not applicable |
| Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc | Not applicable |
| Regulations for the carriage and storage of dangerous goods in ship                   | Not applicable |
| Civil Aeronautics Law                                                                 | Not applicable |
| Pollutant Release and Transfer Register Law                                           | Not applicable |
| Export Trade Control Order                                                            | Not applicable |

## Section 16: OTHER INFORMATION

Literature and references

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a 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.

GHS Classification is according to JIS Z7252(2010). \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**