

Material Safety Data Sheet
Version No.: 1.0 (Rev. date : 2018-02-19)

PL Buffer

1. Product and company identification

Product Name : PL Buffer

Recommended Use : For Research Use Only

Supply Information

- Company : Bioneer
 - Address : 8-11 Munpyeongseo-ro, Daedeok-gu, Daejeon 306-220, Republic of Korea
 - Emergency telephone number : 82-42-930-8777
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2. Hazards identification

A. Classification of the hazardous chemical

Acute toxicity (skin): Class 3

Germ cell mutagenicity: Class 1B

B. Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statements

H311 Harmful in contact with skin

H340 May cause genetic defects

C. Precautionary statements

- Prevention :
 - P201 Obtain special instructions before use
 - P202 Do not handle until all safety precautions have been read and understood
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P280 Wear Protective glove/protective clothing/eye protection/face protection

– Response :

P302+P352 IF ON SKIN: Gently wash with plenty of soap and water.

P308+P313 If exposed, take medical attention

P312 Call a medical center or doctor/physician you feel unwell.

P361+P364 Take off contaminated clothing and wash before reuse.

– Storage :

P405 Store locked up.

– Disposal :

P501 Dispose of contents/container to information seted forth in the relevant laws and regulations.

D. Other Risks-Hazards Not Included in Risk-Hazard Classification

Health 2 Fire 1 Reactivity 0

3. Composition/information on ingredients

Chemical name	Synonyms	CAS No.	Weight (%)
Sodium dodecyl sulfate		151-21-3	< 10%

4. First aid measures

A. Eye contact

If in eyes, rinse carefully with water for a few minutes.

Take urgent medical attention.

B. Skin Contact

Call a medical center or doctor/physician you feel unwell

Take off contaminated clothing and wash before reuse

For hot substances, soak affected areas in a large amount of cold water to eliminate heat

Take urgent medical attention

Remove contaminated clothing and shoes and isolate contaminated arease

Flush skin and eyes with water for at least 20 minutes immediately upon contact with substance

Prevent the spread of contaminated areas on minor skin contact

C. Inhalation

If you eat or inhale the substance, do not breathe in the oral cavity and use appropriate respiratory medical equipment.

If exposed to the substance and feel uncomfortable, consult a medical institution (doctor)

Remove victim to fresh air and keep at rest in a position comfortable for breathing

D. Ingestion

Do not feed anything by mouth to an unconscious person. Take immediate medical attention.

If swallowed and feel uncomfortable, consult a medical institution (doctor)

E. Notes to Physician

Have a medical personnel know about the substance and take protective measures.

5. Fire-fighting measures

A. Proper (improper) extinguishing Media

Use of alcohol, carbon dioxide or water spray in the digestion of this substance

Use dry sand or dirt during choking digestion

B. Special hazards from chemicas

The container may explode when heated.

May cause irritating and very toxic gases by burning or pyrolysis during burning

Some may be burned but do not ignite easily

Non-flammable, the substance itself is not burned, but can be decomposed during heating to cause corrosive/toxic fume

C. Firefighting Protection and Precautions

Some may be transported at high temperatures

Leaking water can cause contamination

May cause skin and eye burns during contact

Let the ditch be dug up for the disposal of the extinguishing water and keep the material from scattering.

If you are not dangerous, move the container in the fire area

After the extinguishing of the tank fire, the container is cooled with plenty of water

If there is a high tone in the tank fire or if the tank is discolored, pull back immediately

When the tank fires, pull back from the tank in flames

6. Accidental release measures

A. Personal Precautions

Immediately wipe off any spills and follow preventive measures in the protective section.

Remove all ignition sources

If you are not at risk, stop the leak.

Do not touch the damaged container or leaking water without wearing adequate protection.

Cover with plastic sheet and spread

Be aware of the materials and conditions that should be avoided

B. Environmental precautions :

Avoid ingress into water, sewers, basements and confined spaces

Do not dispose to the environment

C. Methods and material for containment and cleaning up

For small leaks, absorb into sand, non-combustible material and soak in container.

Absorb liquids and flush contaminated areas with detergent and water.

7. Handling and storage

A. Handling precautions

Avoid inhalation of dust, fume, gas, mist, vapor and spray.

Only handle in well-ventilated places.

After the container has been emptied, the product residue may still remain, so follow all the MDS/label precautions.

Please use the handling/storage carefully.

Carefully open the forehead before opening.

Be aware of the materials and conditions that should be avoided

B. Storage precautions

Drain the empty drum completely and prevent it from being properly put back on the drum regulator or place it properly.

Store container tightly sealed in a well-ventilated place.

Keep away from food and drinks.

8. Exposure controls / personal protection

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- A. Chemical Exposure Standards, Biological Exposure Standards Etc. : No data available
- B. Proper physical management : In case of dust, fume or mist during operation, ventilate air pollution to be maintained below exposure criteria. Facilities for storing or using this material should be equipped with a washing machine and safety shower.
- C. Personal protection
- Respiratory protection
- Wear a respirator that is certified by the Occupational Safety and Health agency to match the physical and chemical properties of the exposed material.
- Wear an oxygen-deficient (< 19.6%), Pine-mask, or self-feeding respirator.
- In the case of gas/liquid materials, the following respiratory protection is recommended-isolation type full-type mask (for organic compounds (acidic gas gas)) or isolated formula, whereas mold mask (for organic compounds (acid Gas Castle Gas)) or direct connection type full-type mask (for organic compounds (acidic gas if acid gas)) or, whereas the type gas mask (for organic compounds (acidic gas)) or motorized gas mask
- Eyes protection : No data available.
 - Hands protection : No data available.
 - Body protection : No data available
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9. Physical and chemical properties

- A. Appearance : Achromatic
- B. Odor : No information
- C. Odor threshold : No information
- D. pH : No information
- E. Freezing/Melting point : No information
- F. Boiling point and Range : No information
- G. Flash point : No information
- H. Evaporation speed : No information
- I. Flammability (Solid, Gas) : No information
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- J. Ignition or explosion range : No information
 - K. Vapor pressure : No information
 - L. Solubility : No information
 - M. Vapor density : No information
 - N. Specific weight : No information
 - O. n-Octanol/Water solubility coefficient : No information
 - P. Self-Flammability : No information
 - Q. Decomposition temperature : No information
 - R. Viscosity : No information
 - S. Molecular weight : No information
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10. Stability and Reactivity

A. Chemical stability and toxic reaction potential

Stable under normal pressure conditions

May cause irritation, corrosive, toxic fumes in the event of fire

Inhalation of substances may be harmful

Some liquids may cause dizziness and choking vapors

The container may explode when heated.

Some may be burned but do not ignite easily

Non-flammable, the substance itself is not burned, but can be decomposed during heating to cause corrosive/toxic fume

May cause irritation or burn to skin and eyes

B. Conditions to avoid

Heat, sparks, flames, etc. Ignition source

C. Conditions to avoid

Flammable materials, reducing materials, metals

D. Hazardous decomposition products

May cause irritating and very toxic gases by burning or pyrolysis during burning

Irritant, toxic gases

11. Toxicological information

A. Probable exposure paths

Irritation, nausea, diarrhea, vomiting skin irritation, skin disorders eye irritation

Short-term exposure causes irritation, chest pain and shortness of breath

Short-term or prolonged exposure causes irritation, allergic reactions

B. Health hazard information

Acute toxicity

– Oral

LD50 1200 mg/kg Rat

– Skin

LD50 600 mg/kg Rabbit

– Inhalation

Dust LC50 10.5 mg/l 4 hr Rat

Skin corrosion/irritation

Human Skin: 250 mg / 24 hr Minimal irritation

Serious eye damage/eye irritation

Rabbit: Medium irritation

Respiratory or skin sensitization : No information

Carcinogenicity : No information

Germ cell mutagenicity

In vitro – Mammalian gene mutation test : Positive(Mouse lymphoma L5178Y cells)

In vivo – Chromosomal aberration test : Positive (Rat, Bone Marrow Cell)_OECD Guideline 475

In vitro – Negative(Salmonella typhimurium strains TA97, TA98, TA100, TA1535, TA 1537, TA1538)_OECD Guideline

471

Reproductive toxicity

NOAEL 300 mg/kg/day (maternal toxicity) NOAEL = 400 mg/kg/day (resorption/litter loss) NOAEL =600 mg/kg/day*

Specific target organ toxicity (single exposure)

Rat/Oral (1 mg/kg/24hr): affect Na-K discharge : Corporate Solution From Thomson
Micromedex(<http://csi.micromedex.com>)

Specific target organ toxicity (repeated exposure)

NOAEL 100 mg/kg/day, Hepatotoxicity

Aspiration hazard: No information

12. Ecological information

A. Biological toxicity

– Fish

LC501.31 mg/l96hrCyprinus carpio

– Crustacean

EC506mg/l48hrDaphnia magna

– Avian

EC501.2mg/l96hrSkeletonema costatum

B. Persistency and Degradability

– Persistency: log Kow 1.60

– Degradability: No information

C. Bioconcentration

– Bioconcentration : BCF 2.1~7.1

– Biodegradability : 100(%)28day

D. Soil mobility: No information

E. Other toxic effects: No information

13. Disposal considerations

A. Disposal method : Dispose of contents and containers in accordance with the regulations, as specified in the Waste Control Act.

B. Disposal considerations : Please take into account the precautions set forth in the Waste Control Act.

14. Transport information

A. UN No : No classification information

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- B. UN proper shipping name : No classification information
 - C. Transport hazard class : No classification information
 - D. Packaging group : No classification information
 - E. Environmental hazards : No classification information
 - F. Special Safety Measures for Users Regarding Shipping or Shipping Measures : No classification information
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15. Regulatory information

- A. Industrial safety and health regulation : No information
 - B. Hazardous chemical management regulation : No information
 - C. Dangerous material management regulation : No information
 - D. Waste management regulation : No information
 - E. Other domestic and international regulations : No information
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16. Other information

Source of Information

AFNOR T 90.302 (1997)(Biodegradability)

ECOTOX(Crustacean)ECOTOX(Fish)ECOTOX(Avian)

IUCLID(Biodegradability)IUCLID(Specific target organ toxicity (Repeat exposure))

OECD SIDS(Oral)OECD SIDS(Bioconcentration)OECD SIDS(Reproductive toxicity)OECD SIDS(Germ cell mutagenicity)SIDS(Specific target organ toxicity (Repeat exposure))cal, SIDS(Skin)

- A. Initial Issue Date : 2018-02-19
- B. Revision Count and Latest Revision Date : 0
- C. Others

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