Section 1. Identification of the chemical product and of the company

1.1 Product identifier
- Trade name: SmartClear Buffer set (TypeA, TypeB) 2nd Gen.
- Catalogue Number: SC-B2001

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

No further relevant information available.

Application of the substance / the mixture: Laboratory chemicals.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: LifeCanvas Technologies.

302-301, Jamwon-ro 88, Seocho-gu, Seoul Korea

Technical services, customer support: support@lifecanvastech.com

1.4 Emergency telephone number: +82-10-2498-7980 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.

Section 2. Hazard(s) identification

- Classification of the substance or mixture
  The product is not classified according to the Globally Harmonized System (GHS).

- Label elements
- GHS label elements Void
- Hazard pictograms Void
- Signal word Void
Hazard statements: Void

Additional information: Contact with acids may cause release of toxic gases

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Section 3. Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with non-hazardous additions.

Listing of dangerous and non-hazardous components:
151-21-3 Sodium Dodecyl Sulfate 10-20%

Section 4. First-aid measures

Description of first-aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Induce vomiting and call for medical help.

Information for doctor

Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed: No further relevant information available.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture: No further relevant information available.

Advice for firefighters

Protective equipment: No special measures required.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear protective clothing.

Environmental precautions:
Dilute with plenty of water.
Do not allow to enter sewers/surface or ground water.

Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Reference to other sections
No dangerous substances are released.

Section 7. Handling and storages

Handling
- **Precautions for safe handling**: Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable
- **Information about protection against explosions and fires**: No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles**: Room temperature, Keep container tightly closed.
- **Information about storage in one common storage facility**: Not required.
- **Further information about storage conditions**: None.

Specific end use(s) No further relevant information available

Section 8. Exposure controls/Personal protection

Additional information about design of technical systems: No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace**: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information**: The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**: The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment**: Not required.
- **Protection of hands**: Protective gloves
- **Material of gloves**: Synthetic gloves
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection**: Safety glasses

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

- **General Information**
- **Appearance**: Form: Liquid
  Color: Light yellow
  Odor: Odorless
  Odour threshold: Not determined.
  pH-value at 20 °C: 9.5
· Change in condition
Melting point/Melting range: undetermined
Boiling point/Boiling range: undetermined
· Flash point: Not applicable
· Flammability (solid, gaseous) Not applicable.
· Ignition temperature:
Decomposition temperature: Not determined.
· Auto igniting: Product is not self-igniting.
· Danger of explosion: Product does not present an explosion hazard.
· Explosion limits:
Lower: Not determined.
Upper: Not determined.
· Water: Fully miscible
· Partition coefficient (n-octanol/water): Not determined.
· Viscosity:
dynamic: Not determined.
kinematic: Not determined.
· Solvent content:
Organic solvents: 0.0 %
· Other information No further relevant information available.

Section 10. Stability and reactivity

Reactivity
· Chemical stability
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· Possibility of hazardous reactions No dangerous reactions known
· Conditions to avoid No further relevant information available.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: No dangerous decomposition products known

Section 11. Toxicological information

Routes of entry: Absorbed through skin. Eye contact.

Toxicity to animals: Acute oral toxicity (LD50): 6440 mg/kg (Rat) (Calculated value for the mixture).

Chronic effects on humans: MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. [Sodium dodecyl sulfate]. Contains material, which may cause damage to the following organs: skin.

Other toxic effects on humans: Slightly hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation.

Special remarks on toxicity to animals: Lowest published lethal dose: LDL [Rabbit] - Route: Skin; Dose: 10000 mg/kg (Sodium dodecyl sulfate)

Special Remarks on chronic effects on humans: May cause adverse reproductive effects based on animal test data. No human data found. (Sodium dodecyl sulfate)
Special Remarks on other toxic effects on humans: Acute potential health effects: skin irritation. May cause allergic reaction. It may be absorbed through the skin. Eyes: Causes eye irritation. Inhalation: Breathing mist or vapor may cause respiratory tract and mucous membrane irritation. May cause allergic respiratory reaction. Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea, and bloating. May also affect behavior (ataxia, somnolence), and cardiovascular system. Chronic potential health effects: Skin: Repeated or prolonged skin contact may cause allergic dermatitis. Inhalation: Repeated or prolonged inhalation may cause allergic respiratory reaction. Ingestion: Repeated or prolonged ingestion may also affect the liver.

Section12. Ecological information

Toxicity

· Aquatic toxicity: No further relevant information available.
· Persistence and degradability No further relevant information available.
· Behavior in environmental systems:
  · Bioaccumulative potential No further relevant information available.
  · Mobility in soil No further relevant information available.
· Additional ecological information:
  · General notes:
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    · Results of PBT and vPvB assessment
      · PBT: Not applicable.
      · vPvB: Not applicable.
    · Other adverse effects No further relevant information available.

Section13. Disposal considerations

Waste treatment methods
· Recommendation
  Hand over to hazardous waste disposers. Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· Uncleaned packagings:
  · Recommendation: Disposal must be made according to official regulations.
  · Recommended cleansing agent: Water, if necessary with cleansing agents.

Section14. Transport information

· UN-Number
  · DOT, ADR, ADN, IMDG, IATA Void
  · UN proper shipping name
  · DOT, ADR, ADN, IMDG, IATA Void
  · Transport hazard class(es)
  · DOT, ADR, ADN, IMDG, IATA Void
  · Class Void
  · Packing group

Section 15. Regulatory information

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

- SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)
  - Section 302/304 (40CFR355.30 / 40CFR355.40):
    None of the ingredients is listed.
  - Section 313 (40CFR372.65):
    None of the ingredients is listed.
  - TSCA (Toxic Substances Control Act):
    All ingredients are listed.
  - Carcinogenic categories
  - EPA (Environmental Protection Agency)
    None of the ingredients is listed.
  - TLV (Threshold Limit Value established by ACGIH)
    None of the ingredients is listed.
  - MAK (German Maximum Workplace Concentration)
    None of the ingredients is listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.
  - National regulations
  - Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

Section 16. Other information.

References: Not available.

Other Special Considerations: Not available.

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