MATERIAL SAFETY DATA SHEET
10X DPBS with Tween-20, 7.4

1. Product and Company Identification

Teknova Inc.
2290 Bert Dr.
Hollister, CA 95023
Telephone Number: 831-637-1100

Emergency Contacts/Telephone Numbers
Chemtrec Emergency Phone Number: (800) 424-9300

Issue Date: 05/20/2009
Catalog Number: P0297
Product Name: 10X DPBS with Tween-20, pH 7.4

2. Composition/Information On Ingredients

Ingredients	Cas Number	Sara #:
Sodium Chloride	7647-14-5	N/A
Sodium Phosphate Dibasic	7558-79-4	N/A
Potassium Phosphate Monobasic	7778-77-0	N/A
Tween-20	9005-64-5	N/A

3. Hazards Identification

Emergency Overview
Osha Hazards
Mild skin irritant
Mild eye irritant
Harmful.
Harmful if swallowed. Risk of serious damage to eyes.
Delayed target organ effects

Target Organs
Central nervous system, kidney, gastrointestinal tractcentral nervous system, kidney, gastrointestinal tract, heart

HMIS Rating
Health: 2
Flammability: 1
Reactivity: 1

NFPA Rating:
Health: 2
Flammability: 1
Reactivity: 1

Refer To Section 11 For More Information.

4. First Aid Measures

Eye
In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
Skin
In case of contact, immediately wash skin with soap and copious amounts of water. Wash contaminated clothing before reuse.
Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Ingestion
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5. Firefighting Measures

Flammable Properties
Flash point: 113 °C (235 °F) closed cup
Ignition temperature: no data available
Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special Protective Equipment For Firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. Accidental Release Measures

Personal Precautions
Avoid dust formation. Avoid breathing vapors, mist or gas.
Environmental Precautions
Do not let product enter drains.
Methods For Cleaning Up
Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Handling
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
Storage
Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Hygroscopic
Special Requirements
Moisture sensitive.

8. Exposure Controls/Personal Protection

Engineering Controls
Safety shower and eye bath. Mechanical exhaust required.
Personal Protective Equipment
Respiratory: use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges.
Hand: protective gloves.
Eye: chemical safety goggles.
General Hygiene Measures
Wash thoroughly after handling.

9. Physical and Chemical Properties

Appearance and Physical Properties: solid
Safety data:
Molecular weight: 110.99 Amu
Bp/Bp range: 1,670 °C
Mp/Mp range: 772 °C
Vapor pressure: 0.01 Mmhg 20 °C
Ph: 7
Flash point: 113 °C (235 °F) closed cup
Melting point: 252.6 °C (486.7 °F)
Boiling point: 100 °C (212 °F)
Vapour pressure: < 1 hPa (< 1 mmHg) at 20 °C (68 °F)
Density: 1.064 g/cm3
Water solubility: soluble

10. Stability and Reactivity

Storage Stability
Stable under recommended storage conditions.
Materials to Avoid
Exposure to moisture, strong oxidizing agents, bases, heavy metal salts.
Hazardous Decomposition Products
Hazardous Decomposition Products Formed Under Fire Conditions.
Sodium/sodium oxides, hydrogen chloride gas, magnesium oxide, phosphorous oxides. Potassium oxides, carbon oxides

11. Toxicological Information

Acute Toxicity

Toxicity Data

Oral-rat-1000 Mg/Kg-LD50
Intraperitoneal –rat-264 Mg/Kg-LD50
Subcutaneous-rat-2630 Mg/Kg-LD50
Intramuscular-rat-25 Mg/Kg-LD50
Oral-mouse-1940 Mg/Kg-LD50
Intraperitoneal-mouse-210 Mg/Kg-LD50
Subcutaneous-mouse-823 Mg/Kg-LD50
Intravenous-mouse-42 Mg/Kg-LD50
LD50 Dermal - rabbit - > 4,640 Mg/Kg
Remarks: behavioral: change in motor activity (specific assay).
Behavioral: convulsions or effect on seizure threshold.
Behavioral: somnolence (general depressed activity).

Irritation and Corrosion

Skin - rabbit - mild skin irritation - 24 H
Eyes - rabbit - mild eye irritation

Route of Exposure

Skin contact: may cause skin irritation.
Skin absorption: may be harmful if absorbed through the skin.
Eye contact: may cause eye irritation.
Inhalation: material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion: may be harmful if swallowed.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological Information

Elimination Information N/A

E Cotoxicity Effects

Toxicity to Fish LC50 - Lepomis Macrochirus (Bluegill) - 1,294.6 Mg/L - 96 H
LC50 - Pimephales Promelas (Fathead Minnow) - 880 Mg/L - 96 H
Mortality Noec - Pimephales Promelas (Fathead Minnow) - 500 Mg/L - 7 D
Mortality Loec - Pimephales Promelas (Fathead Minnow) - 1,000 Mg/L - 7 D
Toxicity to Daphnia and other aquatic invertebrates.
LC50 - Leuciscus Idus (Golden Orfe) - 7,700.00 Mg/L - 48 H
LC50 - other fish - 480 Mg/L - 96 H
Toxicity to Daphnia and other aquatic invertebrates.
EC50 - Daphnia Magna (Water Flea) - 83 Mg/L - 24 H
Immobilization EC50 - Daphnia Magna (Water Flea) - 140 Mg/L - 48 H
Toxicity to algae EC50 - Scenedesmus Subspicatus - 2,200.00 Mg/L - 72 H
NOEC - Daphnia - 1,500 Mg/L - 7 D
Lc50 - Daphnia Magna (Water Flea) - 1,661 Mg/L - 48 H

13. Disposal Considerations

Dispose of any unused material. Observe all federal, state and local environmental regulations.

14. Transport Information

DOT (US)

Un-Number: 3077 Class: 9 Packing group: III
Proper shipping name: environmentally hazardous substances, solid, N.O.S. (disodium hydrogenorthophosphate)

Non-Hazardous for transport: this substance is considered to be non-hazardous for transport.
IATA
Non-Hazardous for aid transport: non-hazardous for air.

15. Regulatory Information

Eu Directives Classification
Symbol of danger: XI
Indication of danger: irritant.
R: 36
Risk statements: irritating to eyes.
S: 22-24
Safety statements: do not breathe dust. Avoid contact with skin.

US Classification and Label Text
Indication of danger: harmful.
Risk statements: harmful if swallowed. risk of serious damage to eyes.
Safety statements: do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

United States regulatory information
SARA listed: no

Canada regulatory information
WHMIS classification: this product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: no
NDSL: no

California Prop. 65 Components
This product does not contain any chemicals known to state of California to cause cancer, birth, or any other reproductive defects.

16. Other Information

Disclaimer
For R&D use only. Not for drug, household or other uses.

Warranty
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Teknova, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Teknova, Inc.