SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier Trade name or designation of the mixture

5X Incubation Buffer

Registration number  -
Synonyms None.
SDS number SDS WS0046
Product code WS0046
Issue date 08-September-2013
Version number AC
Revision date -
Supersedes date 12-May-2012

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

Identified uses Research and development.
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Supplier
Company name ProZyme, Inc.
Address 3832 Bay Center Place
         Hayward, CA 94545
Division
Telephone 1-510-638-6900
E-mail Not available.
Contact person Not available.

1.4. Emergency telephone number

1-760-476-3961

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended
This preparation does not meet the criteria for classification according to Directive 1999/45/EC as amended.

Classification according to Regulation (EC) No 1272/2008 as amended
This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary
Physical hazards Not classified for physical hazards.
Health hazards Not classified for health hazards.
Environmental hazards Not classified for hazards to the environment.
Specific hazards Direct contact with eyes may cause temporary irritation. Prolonged or repeated contact may dry skin and cause irritation.
Main symptoms Irritant effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended
Hazard pictograms None.
Signal word None.
Hazard statements The mixture does not meet the criteria for classification.

Precautionary statements
Prevention Observe good industrial hygiene practices.
Response Wash hands after handling.
Storage Store away from incompatible materials.
Disposal Dispose of waste and residues in accordance with local authority requirements.
Supplemental label information
Not applicable.

2.3. Other hazards
Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>%</th>
<th>CAS-No. / EC No.</th>
<th>REACH Registration No.</th>
<th>INDEX No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium dihydrogenphosphate</td>
<td>1 - 5</td>
<td>7558-80-7</td>
<td>231-449-2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Classification:
DSD: -
CLP: -

DSD: Directive 67/548/EEC.

SECTION 4: First aid measures

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact
Wash skin with soap and water. Get medical attention if irritation develops and persists.

Eye contact
Rinse with water. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed
Irritant effects.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards
This product is not flammable.

5.1. Extinguishing media

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
None known.

5.2. Special hazards arising from the substance or mixture
During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up.

For emergency responders
Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Large Spills: Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use.

6.4. Reference to other sections
For personal protection, see section 8. For waste disposal, see section 13.
SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities
Keep container tightly closed. Store away from incompatible materials.

7.3. Specific end use(s)
Research and development.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
No exposure limits noted for ingredient(s).

Biological limit values

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium dihydrogenphosphate (CAS 7558-80-7)</td>
<td>25 %</td>
<td>red blood cell or total blood acetylcholinesterase activity (EC. 3.1.1.7.)</td>
<td>Reduction from individual baseline activity in red blood cells</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

Recommended monitoring procedures
Follow standard monitoring procedures.

Derived no-effect level (DNEL)
Not available.

Predicted no effect concentrations (PNECs)
Not available.

8.2. Exposure controls

Appropriate engineering controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

General information
Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection
If contact is likely, safety glasses with side shields are recommended.

Skin protection
- Hand protection
Wear protective gloves.
- Other
Wear suitable protective clothing.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

Hygiene measures
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls
Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
- Physical state: Liquid.
- Form: Clear liquid.
- Colour: Colorless

Odour
Not available.

Odour threshold
Not available.

pH
7
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Flammability limit - lower (%): Not available.</td>
</tr>
<tr>
<td></td>
<td>Flammability limit - upper (%): Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not available</td>
</tr>
<tr>
<td>9.2. Other information</td>
<td>No relevant additional information available.</td>
</tr>
</tbody>
</table>

**SECTION 10: Stability and reactivity**

10.1. Reactivity  
The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability  
Material is stable under normal conditions.

10.3. Possibility of hazardous reactions  
No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid  
Excessive heat. Contact with incompatible materials.

10.5. Incompatible materials  
Strong oxidising agents.

10.6. Hazardous decomposition products  
No hazardous decomposition products are known.

**SECTION 11: Toxicological information**

General information  
Low hazard for usual industrial or commercial handling by trained personnel.

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>Expected to be a low ingestion hazard.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No adverse effects due to inhalation are expected.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Prolonged or repeated contact may dry skin and cause irritation.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Direct contact with eyes may cause temporary irritation.</td>
</tr>
</tbody>
</table>

Symptoms  
Irritant effects.

11.1. Information on toxicological effects

Acute toxicity  
Based on available data, the classification criteria are not met.

Skin corrosion/irritation  
Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation  
Based on available data, the classification criteria are not met.

Respiratory sensitisation  
Due to lack of data the classification is not possible.

Skin sensitisation  
Due to lack of data the classification is not possible.

Germ cell mutagenicity  
Due to lack of data the classification is not possible.

Carcinogenicity  
Due to lack of data the classification is not possible.

Reproductive toxicity  
Due to lack of data the classification is not possible.

Specific target organ toxicity - single exposure  
Due to lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure Due to lack of data the classification is not possible.
Aspiration hazard Due to lack of data the classification is not possible.
Mixture versus substance information Not available.
Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity
The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2. Persistence and degradability
No data is available on the degradability of this product.

12.3. Bioaccumulative potential
Not available.

12.4. Mobility in soil
Not available.

12.5. Results of PBT and vPvB assessment
Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR Not regulated as dangerous goods.

RID Not regulated as dangerous goods.

ADN Not regulated as dangerous goods.

IATA Not regulated as dangerous goods.

IMDG Not regulated as dangerous goods.

14.7. Transport in bulk This substance/mixture is not intended to be transported in bulk.

according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

EU regulations
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended
Not listed.
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended
Not listed.
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended
Not listed.
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed.
Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry
Not listed.
Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA
Not listed.

Authorisations
Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended
Not listed.

Restrictions on use
Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Not listed.
Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work
Not regulated.
Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding
Not regulated.

Other EU regulations
Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances
Not regulated.
Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work
Not listed.
Directive 94/33/EC on the protection of young people at work
Not listed.

Other regulations
The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations
Not listed.

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out.

SECTION 16: Other information
List of abbreviations
TWA: Time weighted average.

References
Not available.

Information on evaluation method leading to the classification of mixture
The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15
None.

Training information
Follow training instructions when handling this material.

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