# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifiers

Product name: IVT Reaction Buffer 10x
Product number: CT-14100

Brand: PAN-Celltech

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

Identified uses: Laboratory chemicals, Manufacture of substances

### 1.3. Details of the supplier of the safety data sheet

Company: PAN-Celltech GmbH
Am Gewerbepark 6
94501 Aidenbach
GERMANY

Telephone: +49-(0)8543-6016-30
Fax: +49-(0)8543-6016-49
E-mail: info@pan-celltech.de

### 1.4. Emergency telephone number

Emergency phone: +49-(0)8543-6016-30 or +49 151 51557123

## 2. HAZARDS INDENTIFICATION

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP).
Serious eye damage/eye irritation Eye Irrit. 2 H319 Causes serious eye irritation.

### 2.2. Label Elements

Labelling according to Regulation (EC) No. 1272/2008 (CLP).
**Pictogram:**



**GHS07**
**Signal word: Warning**

| | | |
|---|---|---|
| **Hazard Statements:** | H319 | Causes serious eye irritation. |
| **Precautionary Statements:** | P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| | P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

P337 + P313 If eye irritation persists: Get medical advice/attention.

6.3 % of the mixture consists of component(s) of unknown acute inhalation toxicity."

**2.3. Other hazards**

None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**3.1. Substances**

Synonyms:

Not applicable, product is a mixture.

**3.2. Mixtures**

| Chemical name | CAS-No. | Classification | Concentration |
|---|---|---|---|
| 1,4-Dithiothreit | 3483-12-3 | H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Acute Tox. 4  ATE (Oral) 400 mg/kg | ≥ 1 % |

## 4. FIRST AID MEASURES

**4.1. Description of first aid measures**

**4.1.1. General notes**

**4.1.2. If inhaled**

If breathed in, move person into fresh air. If breathing becomes difficult, call a physician. If not breathing, give artificial respiration.

**4.1.3. In case of skin contact**

In case of contact, immediately wash skin with soap and copious amounts of water.

**4.1.4. In case of eye contact**

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician if symptoms persist.

**4.1.5. If swallowed**

If swallowed, wash out mouth with water provided person is conscious. Call a physician if symptoms persist.

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

No information available.

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

No information available.

## 5. FIREFIGHTING MEASURES

**5.1. Extinguishing media**

**5.1.1. Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.1.2. Unsuitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

Carbon oxides

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing for firefighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid breathing vapors, mist or gas.

**6.2. Environmental precautions**

Do not let product enter drains

**6.3. Methods and materials for containment and cleaning up**

Keep in suitable, closed containers for disposal.

**6.4. Reference to other sections**

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information

## 7. HANDLING AND STORAGE

**7.1. Precautions for safe handling**

Normal measures for preventive fire protection.
Information on protection measures are listed in section 2.2.

**7.2. Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**Recommended storage temperature: -20 °C**

**7.3. Specific end use(s)**

No further information available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Control parameters**

Components with workplace control parameters: not required.

**8.2. Exposure controls**

**Appropriate engineering controls**

General industrial hygiene practice.

**Personal protective equipment**

**Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**

Use impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Do not let product enter drains

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**9.1. Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance Form**: | liquid |
| **Odour** | no data available |
| **Odour Threshold** | no data available |
| **pH** | no data available |
| **Melting point/freezing point** | no data available |
| **Initial boiling point and boiling range** | no data available |
| **Flash point** | no data available |
| **Evaporation rate** | no data available |
| **Flammability** | no data available |
| **Upper/lower flammability or explosive limits** | no data available |
| **Vapour pressure** | no data available |
| **Vapour density** | no data available |
| **Relative density** | no data available |
| **Water solubility** | no data available |
| **Partition coefficient: n-octanol/water** | no data available |
| **Auto-ignition temperature** | no data available |
| **Decomposition temperature** | no data available |
| **Viscosity** | no data available |
| **Explosive properties** | no data available |
| **Oxidizing properties** | no data available |

**9.2. Other information**

No data available.

## 10. STABILITY AND REACTIVITY

**10.1. Reactivity**
No data available

**10.2. Chemical stability**
Stable under recommended storage conditions

**10.3. Possibility of hazardous reactions**
No data available

**10.4. Conditions to avoid**
No data available

**10.5. Incompatible materials**
Strong oxidizing agents

**10.6. Hazardous decomposition products**
Other decomposition products - no data available

## 11. TOXICOLOGICAL INFORMATION

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

| | |
|---|---|
| **Acute toxicity** | no data available |
| **Skin corrosion/irritation** | May cause skin irritation. |
| **Serious eye damage/eye irritation** | 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. |
| **Respiratory or skin sensitization** | no data available |
| **Germ cell mutagenicity** | no data available |

**Carcinogenicity**
IARC:
No component of this product present at levels greater than or equal to 0.1% is identified as p robable, possible or confirmed human carcinogen by IARC.

| | |
|---|---|
| **Reproductive toxicity** | no data available |
| **Specific target organ toxicity - single exposure** | no data available |
| **Specific target organ toxicity - repeated exposure** | no data available |
| **Aspiration hazard** | no data available |

**11.2. Information on other hazards**
RTECS: Not available
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

**12.1. Toxicity**

| Chemical name | CAS-No. | LC/EC | $ErC_{50}$/LOEC |
|---|---|---|---|
| Tris-Hydrochloride | 1185-53-1 | $LC_{50}$:460 mg/L 4 d<br>Fisch, Leuciscus idus<br>Prüfrichtlinie OECD 203<br>$EC_{50}$: >117 mg/L 2 d<br>Daphnia magna<br>Prüfrichtilinie 202<br>$EC_{50}$: >1000 mg/L<br>Alge/Wasserpflanze,<br>Belebtschlamm<br>Prüfrichtlinie 209 | |
| 1.4-Dithiothreit | 3483-12-3 | | $ErC_{50}$: 24,3 mg/L 3 d<br>Alge/Wasserpflanze<br>Prüfrichtlinie 201 |

**12.2. Persistence and degradability**
No data available

**12.3. Bioaccumulative potential**
No data available

**12.4. Mobility in soil**
No data available

**12.5. Results of PBT and vPvB assessment**
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6. Endocrine disrupting properties**
No data available

**12.7. Other adverse effects**
No data available

## 13. DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**
**Product/unused product**
**Recommendation:**
Offer surplus and non-recyclable solutions to a licensed disposal company.
**Contaminated packaging**
**Recommendation:**
Dispose of as unused product.

## 14. TRANSPORT INFORMATION

**14.1. UN number or ID number**
ADR/RID: - IMDG: - IATA: -

**14.2. UN Proper shipping name**
ADR/RID: Not dangerous IMDG: Not dangerous IATA: Not dangerous

| | | | |
|---|---|---|---|
| | Goods | goods | goods |
| **14.3.** | **Transport hazard class(es)** | | |
| | ADR/RID: - | IMDG: - | IATA: - |
| **14.4.** | **Packing group** | | |
| | ADR/RID: - | IMDG: - | IATA: - |
| **14.5.** | **Environmental hazards** | | |
| | ADR/RID: no | IMDG Marine pollutant: no | IATA: no |
| **14.6.** | **Special precautions for user** | No data available | |
| **14.7.** | **Maritime transport in bulk according to IMO instruments** | | |
| | No data available | | |

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

Water hazard class WGK 3 : Highly hazardous to water
Classification according to Annex 1 of the Ordinance on Facilities for Handling Substances Hazardous to Water (AwSV) self-classification.

**15.2. Chemical safety assessment**

No data available

## 16. OTHER INFORMATION

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PAN-Celltech GmbH shall not be held liable for any damage resulting from handling or from contact with the above product. See www.pan-biotech.com or reverse side of invoice or packing slip for additional terms and conditions of sale.