

Heidelberg University Hospital
 Institute of Immunology
 Transplantation Immunology
 Im Neuenheimer Feld 305
 69120 Heidelberg – Germany
 Phone: +49-6221-564013
 Fax: +49-6221-564200
 www.ctstransplant.org

Manual No.: 100B
 Revision: April 06, 2017



CTS Collaborative Transplant Study

Material Safety Data Sheet for the CTS-PCR-SSP TRAY and MINITRAY KITS

1. Identification of the products and company

1.1 Products

To be applied to the following products:

| Product No. | Description | |
|-------------|---|--|
| 101 | HLA-A* CTS-PCR-SSP TRAY KIT |  |
| 102 | HLA-B* CTS-PCR-SSP TRAY KIT | |
| 104 | HLA-DRB1* CTS-PCR-SSP TRAY KIT | |
| 120 | HLA-A*+B*+C* CTS-PCR-SSP TRAY KIT | |
| 121 | HLA-A*+B*+DRB1* CTS-PCR-SSP TRAY KIT | |
| 122 | HLA-DRB1*+DQB1* Low Resolution CTS-PCR-SSP TRAY | |
| 246 | Celiac Disease CTS-PCR-SSP MINITRAY KIT | |
| 347 | Narcolepsy CTS-PCR-SSP MINITRAY KIT |  |
| 103 | HLA-C* CTS-PCR-SSP TRAY KIT | |
| 340 | HLA-C*04:09N CTS-PCR-SSP MINITRAY KIT | |
| 119 | HLA-DQB1*Low Resolution CTS-PCR-SSP TRAY KIT | |
| 127 | HLA-DQA1* Low Resolution CTS-PCR-SSP TRAY KIT | |
| 128 | HLA-DQB1*+DQA1* Low Resolution CTS-PCR-SSP TRAY | |
| 502 | CTS-Cycler Control Kit | |

1.2 Company: Heidelberg University Hospital
 Institute of Immunology
 Transplantation Immunology
 Im Neuenheimer Feld 305
 69120 Heidelberg – Germany
 Phone: +49-6221-564013 - Fax: +49-6221-564200
 E-mail: dna-labor@med.uni-heidelberg.de

2. Composition/information on ingredients

| Component | Chemical | Common name | CAS No. |
|------------------|-------------------------------|-----------------|-----------------------|
| PCR primer mixes | Cresol red | | 62625-29-0 |
| | Deoxyribonucleic acid (= DNA) | Oligonucleotide | 170274-78-9 |
| Mastermix | Ammonium sulfate | | 7783-20-2 |
| | Tris buffer | | 77-86-1, 1185-53-1 |
| | Magnesium chloride | | 7791-18-6 |
| | Glycerol | Glycerin | 56-81-5 |
| | Cresol red | | 62625-29-0 |
| | Deoxyribonucleotides | dNTPs | 1927-31-7 |

CAS No: unique numeric identifier (designates only one substance)

3. Hazards identification

Mastermix:

May be harmful if ingested, inhaled or absorbed through skin. Irritating to eyes, skin und mucous membranes.

Unusual fire hazards: May emit toxic fumes under fire conditions.

4. First aid measures

In case of contact with eyes: Immediately flush eyes with copious amounts of water for at least 15 minutes. Call a physician.

In case of contact with skin: Immediately wash skin with soap and copious amounts of water. Call a physician.

In case of ingestion: Wash out mouth with water, if the person is conscious. Call a physician.

In case of inhalation: Provide fresh air or oxygen. Call a physician.

5. Fire-fighting measures

Extinguishing media: Water spray, carbon dioxide, dry chemical powder or appropriate foam.

Fire fighting procedures: Wear self-contained breathing apparatus and protective clothing.

6. Accidental release measures

Personal protection: Avoid direct contact with reagents. Wear protective clothing and boots, appropriate chemically resistant gloves and chemical safety goggles.

Cleaning method: Clean up with inert material, avoid raising dust and place in a suitable container for disposal. Wash spilled site after material having been picked up and ventilate area.

7. Handling and storage

Wear suitable protective clothing and gloves. It is not necessary to work in a hood or to wear a mask while performing the test.

Store the components at temperature indicated for each of them on the product labels and in the working instructions. Protect from light.

8. Exposure controls/personal protection

Laboratory coat, suitable chemical-resistant gloves (e. g. nitrile gloves while handling ethidium bromide), chemical safety goggles, respirator (e. g. NIOSH/MSHA-approved respirator), safety shower and eye bath.

9. Physical and chemical properties

| Component | Appearance | Color |
|------------------------------|--|--------|
| CTS-PCR-SSP Tray or Minitray | Dried primer solutions in cavities of tray or minitray | Pink |
| Mastermix | Slight viscous liquid in plastic tubes | Purple |

Violent or explosive reactions have been reported to occur upon direct contact of glycerol with e. g. sodium hydride, phosphorous trioxide, perchloric acid, chlorine, calciumhypochlorite, nitric acid and hydrofluoric acid, nitric acid and sulfuric acid, sodium peroxide, hydrogen peroxide or potassium permanganate.

10. Stability and reactivity

Incompatibilities: Strong oxidizing agents, strong bases

Hazardous combustion or decomposition products: Sulfur oxides, ammonia, nitrogen oxides, carbon monoxide, carbon dioxide, and phosphorous oxides.

Hazardous polymerization: Not known to occur.

11. Toxicological information

Toxicological information on the chemicals listed in section 2 (Composition/information on ingredients) can be obtained e. g. from the TOXNET Data Bases (Toxicology Data Network) (<http://toxnet.nlm.nih.gov>).

12. Ecological information

Data not available.

13. Disposal considerations

The material can be burned in an appropriate chemical incinerator. Observe all applicable Federal, State and Local environmental regulations.

14. Transport information

Contact dna-labor@med.uni-heidelberg.de for transportation information. No classification has been assigned.

15. Regulatory information

Data not available.

16. Other information

The information given in this Material Safety Data Sheet is not supposed to be comprehensive and should only be used as a guide. This product is for professional use by PCR-trained personnel only. The Institute of Immunology, Transplantation Immunology, University Clinic Heidelberg, Heidelberg, Germany, is not liable for any damage resulting from handling or using the products mentioned above.