



MATERIAL SAFETY DATA SHEET In accordance with (EU) 2015/830

SECTION 1. IDENTIFICATION

Product name	PCR Mix
Manufacturer or supplier's details	GENETEK BIOPHARMA GmbH . Schwarzschildstraße 6. 12489 Berlin
Telephone	0049-3063927050
Responsible Department	GENETEK BIOPHARMA GmbH . Schwarzschildstraße 6. 12489 Berlin
Responsible/issuing person	Prof. Sirous Zeinali
E-mail address	zeinali@genetek.de
Recommended use of the chemical and restrictions on use	Laboratory chemicals

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification	Not a hazardous substance or mixture.
GHS Label element	Not a hazardous substance or mixture.
Other hazards	None known

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture	Mixture
Substance name	PCR Mix

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%w/v)
Ammonium Sulfate	7783-20-2	2.63
Tris	1185-53-1	9.08

SECTION 4. FIRST AID MEASURES

General advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	Move to fresh air. If symptoms persist, call a physician.

In case of skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
In case of eye contact	Remove contact lenses. Protect unharmed eye. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	If accidentally swallowed obtain immediate medical attention. Rinse mouth with water. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	No information available.
Notes to physician	No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards during fire fighting	Exposure to decomposition products may be a hazard to health
Hazardous combustion products	No hazardous combustion products are known
Specific extinguishing methods	In the event of fire and/or explosion do not breathe fumes.
Special protective equipment for fire-fighters	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
Methods and materials for containment and cleaning up	Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	Normal measures for preventive fire protection.
Advice on safe handling	Smoking, eating and drinking should be prohibited in the application area.
Recommended storage temperature	-20 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters contains no substances with occupational exposure limit values.

Personal protective equipment

Hand protection Remarks

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection

Safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Footwear protecting against chemicals

Hygiene measures

Keep away from food and drink.

When using do not eat, drink or smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Color	colorless
Odor	colorless
Odor Threshold	No data available
pH	6-8
Melting point/range	0 °C
Boiling point/boiling range	100 °C (1,013 hPa)
Flash point	No data available
Evaporation rate	No data available
Burning rate	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Vapor pressure	23 hPa (20 °C)
Relative vapor density	No data available
Relative density	1 (3.98 °C)
Density	1.00 g/cm ³
Solubility(ies) Water solubility	Completely miscible
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	Does not ignite
Decomposition temperature	No data available
Viscosity	No data available
Viscosity, dynamic	
Viscosity, kinematic	No data available
Explosive properties	Not applicable
Oxidizing properties	18.02 g/mol

SECTION 10. STABILITY AND REACTIVITY

GENETEK BIOPHARMA GmbH

Schwarzschildstraße 6
Berlin · Germany
www.genetek-biopharma.com

Reactivity	No decomposition if stored and applied as directed.
Chemical stability	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	Stable under recommended storage conditions. Hazardous decomposition products formed under fire conditions.
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Product:

Acute oral toxicity	No data available
Acute inhalation toxicity	No data available
Acute dermal toxicity	No data available

Skin corrosion/irritation	Not classified based on available information.
Product	No data available
Serious eye damage/eye irritation	Not classified based on available information.
Product	No data available

Respiratory or skin sensitization	
Skin sensitization	Not classified based on available information.
Respiratory sensitization	Not classified based on available information.

Germ cell mutagenicity	Not classified based on available information.
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Carcinogenicity	Not classified based on available information.
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IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Not classified based on available information.
Aspiration toxicity	Not classified based on available information.
Further information	Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	
Toxicity to fish	No data available
Toxicity to algae	No data available
Toxicity to bacteria	No data available
Persistence and degradability	No data available
Bioaccumulative potential	
Product: Bioaccumulation	No data available
Mobility in soil	No data available
Other adverse effects	
Product: Ozone-Depletion Potential	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).	
Additional ecological information	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods Waste from residues	Dispose of contents/container in accordance with local regulation
Waste from residues	
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

UNRTDG	Not regulated as a dangerous good
IATA-DGR	Not regulated as a dangerous good

IMDG-Code	Not regulated as a dangerous good
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No data available
Domestic regulation 49 CFR	Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know - CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards

No SARA Hazards

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

(Q)SAR - (Quantitative) Structure Activity Relationship; ASTM - American Society for the Testing of Materials; bw - Body weight; DIN - Standard of the German Institute for Standardisation; EC_x - Concentration associated with x% response; EL_x - Loading rate associated with x% response; EmS - Emergency Schedule; ErC_x - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC₅₀ - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC₅₀ - Lethal Concentration to 50 % of a test population; LD₅₀ - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; DOT - Department of Transportation; EHS - Extremely Hazardous Substance; HMIS - Hazardous Materials Identification System; MSHA - Mine Safety and Health Administration; NFPA - National Fire Protection Association; RCRA - Resource Conservation and Recovery Act; RQ - Reportable Quantity; SARA - Superfund Amendments and Reauthorization Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice; ERG - Emergency Response Guide; NTP - National Toxicology Program; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods

Full texts for Regulations mentioned in this Safety Data Sheet

853/2015 COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

89/391 COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work

1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC Annex I

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.