05/10/2022	Kit Components
Product code	Description
1103400	GENECLEAN® Turbo for PCR Kit, 100 preps
Components:	
1103401	GENECLEAN Turbo Salt
1103402	GENECLEAN Turbo Wash Solution
1103403	GENECLEAN Turbo for PCR Cartridge

GENECLEAN Turbo Elution Solution

1103405



Printing date 05/10/2022 Reviewed on 05/10/2022

1 Identification

· Product identifier

· Trade name: GENECLEAN Turbo Salt

· Article number: 1103401

· Application of the substance / the mixture For Research or Further Manufacturing Use.

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: MP Biomedicals, LLC 29525 Fountain Parkway Solon, OH 44139 United States www.mpbio.com

· Information department: Quality Control Department

· Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2 Hazard(s) identification

· Classification of the substance or mixture



GHS05 Corrosion

Skin Corr. 1C H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS05

GHS07

- · Signal word Danger
- · Hazard-determining components of labeling:

Guanidine Thiocyanate

· Hazard statements

Harmful if swallowed or if inhaled.

Causes severe skin burns and eye damage.

· Precautionary statements

Do not breathe dusts or mists.

Wash thoroughly after handling.

(Contd. on page 2)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo Salt

(Contd. of page 1)

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 3Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 3Fire = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description:

Mixture of substances listed below with nonhazardous additions.

Mixture: consisting of the following components.

· Dangerous components:

CAS: 593-84-0

Guanidine Thiocyanate

EINECS: 209-812-1

10-50%

4 First-aid measures

- · Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Consult your Doctor. Show the safety data sheet to the Doctor. Away from the dangerous area.

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. If breathed in, supply fresh air. If not breathing, give artificial respiration. Consult a Doctor.

· After skin contact: Immediately rinse with water.

(Contd. on page 3)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo Salt

(Contd. of page 2)

- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing:

Never give anything by mouth to an unconscious person. Rinse mouth with water. If symptoms persist consult a Doctor.

- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Pick up mechanically, dispose contaminated material as waste according to Section 13.

Ensure adequate ventilation.

· 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.

· Protective Action Criteria for Chemicals

1 Total Tallon Chieffa for Chemicals	
· PAC-1:	
593-84-0 Guanidine Thiocyanate	0.98 mg/m^3
· PAC-2:	
593-84-0 Guanidine Thiocyanate	11 mg/m³
· PAC-3:	
593-84-0 Guanidine Thiocyanate	65 mg/m^3

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Avoid direct contact with skin and eyes.

Prevent formation of aerosols.

(Contd. on page 4)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo Salt

(Contd. of page 3)

- · Information about protection against explosions and fires: Keep respiratory protective device available.
- · Conditions for safe storage, including any incompatibilities
- · **Storage:** 15-30°C
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Further information about storage conditions:
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see Section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo Salt

(Contd. of page 4)

Information on basic physical and	chemical properties
General Information	
Appearance: Form:	Liquid
Form: Color:	According to product specification
Odor:	Indeterminate
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not applicable.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	See section 10
Explosion limits:	
Lower:	Not Applicable
Upper:	Not Applicable
Vapor pressure:	Not Applicable
Density:	Not Applicable
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	Not Determined
Water:	Soluble.
Partition coefficient (n-octanol/wat	t er): Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
Water:	58.5 %
VOC content:	0.00 %
	0.0 g/l / 0.00 lb/gal

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.

(Contd. on page 6)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo Salt

(Contd. of page 5)

· Conditions to avoid

No further relevant information available.

Avoid contact with acids. Contact liberates a toxic gas.

- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values	s that are re	levant for c	lassification:
------------------	---------------	--------------	----------------

ATE (Acute Toxicity Estimate)				
Oral	LD50	1,312 mg/kg		
Dermal	LD50	2,887 mg/kg		
Inhalative	LC50/4 h	3.94 mg/L		

593-84-0 Guanidine Thiocyanate

Oral	LD50	500 mg/kg (ATE)
		1,100 mg/kg (ATE)
Inhalative	LC50/4 h	1.5 mg/L (ATE)

- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Strong irritant with the danger of severe eye injury.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Harmful

Irritant

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

(Contd. on page 7)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo Salt

(Contd. of page 6)

- Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Can not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Discard must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleaning agents.

1400			C	. •
14 T	ransport	un	ormai	ron

٠ [IN-Number
-----	-----------

· DOT, ADR, IMDG, IATA

· UN proper shipping name

 $\cdot DOT$

Corrosive liquids, n.o.s. (Guanidine Thiocyanate) $\cdot ADR$ 1760 CORROSIVE LIQUID, N.O.S. (Guanidine Thiocyanate)

· IMDG, IATA CORROSIVE LIQUID, N.O.S. (Guanidine Thiocyanate)

UN1760

· Transport hazard class(es)

 $\cdot DOT$



· Class 8 Corrosive substances

· Label

· ADR, IMDG, IATA



· Class 8 Corrosive substances

· Label

· Packing group

· DOT, ADR, IMDG, IATA III

Not applicable. · Environmental hazards:

Warning: Corrosive substances · Special precautions for user

· Hazard identification number (Kemler code): 80

F-A,S-B· EMS Number:

· Stowage Category

(Contd. on page 8)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo Salt

	(Contd. of page 7
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	On passenger aircraft/rail: 5 L
· Quantity limitations	On cargo aircraft only: 60 L
· ADR · Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN ''Model Regulation'':	UN 1760 CORROSIVE LIQUID, N.O.S. (GUANIDIN THIOCYANATE), 8, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara

· Section 355	(extremely	hazardous	s substances)):
---------------	------------	-----------	---------------	----

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxio	Substances	Control .	Act):
---------------	------------	-----------	-------

7732-18-5	Water	ACTIVE
593-84-0	Guanidine Thiocyanate	ACTIVE
69-65-8	D-mannitol	ACTIVE
4432-31-9	MES	ACTIVE

· Hazardous Air Pollutants

None of the ingredients is listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

(Contd. on page 9)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo Salt

(Contd. of page 8)

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS05

- · Signal word Danger
- · Hazard-determining components of labeling:

Guanidine Thiocyanate

· Hazard statements

Harmful if swallowed or if inhaled.

Causes severe skin burns and eye damage.

· Precautionary statements

Do not breathe dusts or mists.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Quality Control Dept.
- · Contact:
- · Date of preparation / last revision 05/10/2022 / -
- · Abbreviations and acronyms:

Acute Tox. 4: Acute toxicity - Category 4

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

Eye Dam. 1: Serious eye damage/eye irritation - Category 1



Printing date 05/10/2022 Reviewed on 02/04/2022

1 Identification

· Product identifier

· Trade name: GENECLEAN Turbo Wash Solution

· Article number: 1103402

· Application of the substance / the mixture For Research or Further Manufacturing Use.

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: MP Biomedicals, LLC 29525 Fountain Parkway Solon, OH 44139 United States www.mpbio.com

· Information department: Quality Control Department

· Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2 Hazard(s) identification

· Classification of the substance or mixture

The product is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 0 Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable. · **vPvB**: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description:

Mixture of substances listed below with nonhazardous additions.

Mixture: consisting of the following components.

(Contd. on page 2)

Printing date 05/10/2022 Reviewed on 02/04/2022

Trade name: GENECLEAN Turbo Wash Solution

(Contd. of page 1)

· Dangerous components: Void

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Flush eyes with running water as a precaution.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

· Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· Protective Action Criteria for Chemicals

1100000000	10000 Citteria joi enemieats	
· <i>PAC-1</i> :		
1185-53-1	Tris Hydrochloride	12 mg/m ³
77-86-1	TRIS	18 mg/m³
· PAC-2:		
1185-53-1	Tris Hydrochloride	130 mg/m³
77-86-1	TRIS	190 mg/m³
· PAC-3:		
1185-53-1	Tris Hydrochloride	790 mg/m³
		(Contd. on page 3

Printing date 05/10/2022 Reviewed on 02/04/2022

Trade name: GENECLEAN Turbo Wash Solution

77-86-1 TRIS (Contd. of page 2)
1,200 mg/m³

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special requirements.
- · Conditions for safe storage, including any incompatibilities
- · **Storage:** 15-30°C
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Further information about storage conditions:
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see Section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Solution
Color: Colorless
Odor: Indeterminate

(Contd. on page 4)

Printing date 05/10/2022 Reviewed on 02/04/2022

Trade name: GENECLEAN Turbo Wash Solution

	(Contd. of	f pag
Odor threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	See section 10	
Explosion limits: Lower: Upper:	Not Applicable Not Applicable	
Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)	
Density: Relative density Vapor density Evaporation rate	Not Applicable Not determined. Not determined. Not determined.	
Solubility in / Miscibility with Water:	Not Determined Fully miscible.	
Partition coefficient (n-octanol/water	e r): Not determined.	
Viscosity: Dynamic: Kinematic:	Not determined. Not determined.	
Solvent content: Water: VOC content:	84.5 % 0.00 % 0.0 g/l / 0.00 lb/gal	
Other information	No further relevant information available.	

10 Stability and reactivity

- $\cdot \textit{Reactivity No further relevant information available}.$
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid

No further relevant information available.

Avoid contact with acids. Contact liberates a toxic gas.

- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

Printing date 05/10/2022 Reviewed on 02/04/2022

Trade name: GENECLEAN Turbo Wash Solution

(Contd. of page 4)

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Irritant and potentially harmful
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Can not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- **Recommendation:** Discard must be made according to official regulations.
- · **Recommended cleansing agent:** Water, if necessary with cleaning agents.

Printing date 05/10/2022 Reviewed on 02/04/2022

Trade name: GENECLEAN Turbo Wash Solution

(Contd. of page 5)

UN-Number DOT, ADR, ADN, IMDG, IATA	Not regulated
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Not regulated
Transport hazard class(es)	
DOT, ADR, ADN, IMDG, IATA Class	Not regulated
Packing group DOT, ADR, IMDG, IATA	Not regulated
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	Not regulated

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

- · Hazardous Air Pollutants
- None of the ingredients is listed.
- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

(Contd. on page 7)

Printing date 05/10/2022 Reviewed on 02/04/2022

Trade name: GENECLEAN Turbo Wash Solution

(Contd. of page 6)

· TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · **GHS label elements** Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Quality Control Dept.
- · Contact:
- · Date of preparation / last revision 05/10/2022 / -

US



Printing date 05/10/2022 Reviewed on 05/10/2022

1 Identification

- · Product identifier
- · Trade name: GENECLEAN Turbo for PCR Cartridge
- · Article number: 1103403
- · Application of the substance / the mixture For Research or Further Manufacturing Use.
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier: MP Biomedicals, LLC 29525 Fountain Parkway Solon, OH 44139 United States www.mpbio.com
- · Information department: Quality Control Department
- · Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2 Hazard(s) identification

- · Classification of the substance or mixture

 The substance is not classified, according to the Globally Harmonized System (GHS).
- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 0 Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description

GENECLEAN Turbo for PCR Cartridge

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo for PCR Cartridge

(Contd. of page 1)

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Flush eyes with running water as a precaution.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up: Pick up mechanically.
- · 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.

· Protective Action Criteria for Chemicals

· PAC-1:

Substance is not listed.

· PAC-2:

Substance is not listed.

· PAC-3:

Substance is not listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special requirements.
- · Conditions for safe storage, including any incompatibilities
- · **Storage:** 15-30°C
- · Requirements to be met by storerooms and receptacles: No special requirements.

(Contd. on page 3)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo for PCR Cartridge

(Contd. of page 2)

- · Further information about storage conditions:
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see Section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Explosion limits: Lower:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

9 Physical and chemical properties

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Not required.

General Information		
Appearance:		
Form:	According to product specification	
Color:	According to product specification	
Odor:	Indeterminate	
Odor threshold:	Not determined.	
pH-value:	Not applicable.	
Change in condition		
Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Product is not flammable.	
Decomposition temperature:	Not determined.	
Auto igniting:	Not determined.	
Danger of explosion:	See section 10	

Not Applicable

(Contd. on page 4)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo for PCR Cartridge

		(Contd. of page
Upper:	Not Applicable	
Vapor pressure:	Not applicable.	
Density:	Not Applicable	
Relative density	Not determined.	
Vapor density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with	Not Determined	
Water:	Easily soluble.	
Partition coefficient (n-octanol/wa	t ter): Not determined.	
Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
VOC content:	0.00 %	
Solids content:	100.0 %	
Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid

 $No\ further\ relevant\ information\ available.$

Avoid contact with acids. Contact liberates a toxic gas.

- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Irritant and potentially harmful
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The substance is not subject to classification.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

(Contd. on page 5)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo for PCR Cartridge

(Contd. of page 4)

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Can not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Discard must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleaning agents.

4 Transport information	
· UN-Number · DOT, ADR, IMDG, IATA	Not regulated
· UN proper shipping name · DOT, ADR, IMDG, IATA	Not regulated
· Transport hazard class(es)	
· DOT, ADR, IMDG, IATA · Class	Not regulated
· Packing group · DOT, ADR, IMDG, IATA	Not regulated
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	r Not applicable.

(Contd. on page 6)

Printing date 05/10/2022 Reviewed on 05/10/2022

Trade name: GENECLEAN Turbo for PCR Cartridge

(Contd. of page 5)

· UN ''Model Regulation'': Not regulated

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is not listed.

· Hazardous Air Pollutants

Substance is not listed.

- · Proposition 65
- · Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

Substance is not listed.

· TLV (Threshold Limit Value)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

- · **GHS label elements** Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Quality Control Dept.
- . Contact:
- · Date of preparation / last revision 05/10/2022 / -



Reviewed on 03/27/2018 Printing date 05/10/2022

1 Identification

· Product identifier

· Trade name: GENECLEAN Turbo Elution Solution

· Article number: 1103405

· CAS Number: 7732-18-5 · EC number: 231-791-2

· Molecular Formula H2O

· Molecular Weight 18.02

- · Application of the substance / the mixture For Research or Further Manufacturing Use.
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier: MP Biomedicals, LLC 29525 Fountain Parkway Solon, OH 44139 **United States** www.mpbio.com
- · Information department: Quality Control Department
- · Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2 Hazard(s) identification

· Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonized System (GHS).

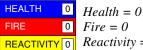
- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 0Fire = 0

Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Fire = 0

Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

Printing date 05/10/2022 Reviewed on 03/27/2018

Trade name: GENECLEAN Turbo Elution Solution

(Contd. of page 1)

3 Composition/information on ingredients

· Chemical characterization: Substances

· CAS No. Description 7732-18-5 Water

· Identification number(s) -

· EC number: 231-791-2

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Flush eyes with running water as a precaution.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

- · Environmental precautions: Dilute with plenty of water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· Protective Action Criteria for Chemicals

· PAC-1:

Substance is not listed.

· PAC-2:

Substance is not listed.

(Contd. on page 3)

Printing date 05/10/2022 Reviewed on 03/27/2018

Trade name: GENECLEAN Turbo Elution Solution

(Contd. of page 2)

· *PAC-3*:

Substance is not listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special requirements.
- · Conditions for safe storage, including any incompatibilities
- · **Storage:** 15-30°C
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Further information about storage conditions:
- \cdot *Specific end use(s) No further relevant information available.*

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see Section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid
Color: Colorless
Odor: Indeterminate
Odor threshold: Not determined.

(Contd. on page 4)

Printing date 05/10/2022 Reviewed on 03/27/2018

Trade name: GENECLEAN Turbo Elution Solution

		(Contd. of page
pH-value:	Not determined.	
· Change in condition		
Boiling point/Boiling range:	100 °C (212 °F)	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	
· Auto igniting:	Not determined.	
Danger of explosion:	See section 10	
Explosion limits:		
Lower:	Not Applicable	
Upper:	Not Applicable	
Vapor pressure:	Not Applicable	
Density at 20 °C (68 °F):	1 g/cm³ (8.345 lbs/gal)	
Relative density	Not determined.	
· Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with	Not Determined	
Water:	Fully miscible.	
Partition coefficient (n-octanol/wa	ter): Not determined.	
Viscosity:		
Dynamic at 20 °C (68 °F):	0.952 mPas	
Kinematic:	Not determined.	
Water:	100.0 %	
VOC content:	0.00 %	
	0.0 g/l / 0.00 lb/gal	
Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid

No further relevant information available.

Avoid contact with acids. Contact liberates a toxic gas.

- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

Printing date 05/10/2022 Reviewed on 03/27/2018

Trade name: GENECLEAN Turbo Elution Solution

(Contd. of page 4)

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Irritant and potentially harmful
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The substance is not subject to classification.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- $\cdot \textit{\textbf{Mobility in soil}} \ \textit{No further relevant information available}.$
- · Additional ecological information:
- · General notes: Not hazardous for water.
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Can not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Discard must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleaning agents.

Printing date 05/10/2022 Reviewed on 03/27/2018

Trade name: GENECLEAN Turbo Elution Solution

(Contd. of page 5)

UN-Number	No. 1
DOT, ADR, ADN, IMDG, IATA	Not regulated
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Not regulated
Transport hazard class(es)	
DOT, ADR, ADN, IMDG, IATA Class	Not regulated
Packing group DOT, ADR, IMDG, IATA	Not regulated
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	Not regulated

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

ACTIVE

· Hazardous Air Pollutants

Substance is not listed.

- · Proposition 65
- · Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

Substance is not listed.

(Contd. on page 7)

Printing date 05/10/2022 Reviewed on 03/27/2018

Trade name: GENECLEAN Turbo Elution Solution

(Contd. of page 6)

· TLV (Threshold Limit Value)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

- · **GHS label elements** Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Quality Control Dept.
- · Contact:
- · Date of preparation / last revision 05/10/2022 / -

US