MPLC totalNA Isol.Kit-Lysis/Bind.Buf.Ref

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Commercial Product Name	:	MPLC totalNA Isol.Kit-Lysis/Bind.Buf.Ref
Mat.-No./ Genisys-No.	:	03246779001
Ventana material number	:	

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

Recommended restrictions on use	:	For professional users only.

1.3 Details of the supplier of the safety data sheet

Company	:	Roche Diagnostics 9115 Hague Road 46250 Indianapolis IN	
E-mail address	:		
Telephone	:	1-800-428-5074	
Telefax	:		
Responsible Department	:		
In case of emergencies:	:	CHEMTREC	1-800-424-9300 (U.S. or Canada) 1-703-527-3887 (International)
	:		

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Harmful	R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
Irritant	R41: Risk of serious damage to eyes. R32: Contact with acids liberates very toxic gas.
Dangerous for the environment	R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements :

H302 + H332	Harmful if swallowed or if inhaled
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/ eye protection/ face protection.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/ physician.

Disposal:

P501	Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

593-84-0	guanidinium thiocyanate
9002-93-1	Triton X-100

Additional Labelling:

EUH032 Contact with acids liberates very toxic gas.

2.3 Other hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
guanidinium thiocyanate	593-84-0 209-812-1	Xn; R20/21/22 R32 R52-R53	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Aquatic Chronic 3; H412	>= 25 - < 50
Triton X-100	9002-93-1	Xn; R22 Xi; R41	Acute Tox. 4; H302 Eye Dam. 1; H318	>= 20 - < 25

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : Move to fresh air.
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : If on skin, rinse well with water.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed	:	Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Wear self contained breathing apparatus for fire fighting if necessary.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Treat recovered material as described in the section "Disposal considerations".

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling	:	Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations. To prevent leaks or spillages from spreading, provide a suitable liquid retention system.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	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. Electrical installations / working materials must comply with the technological safety standards.
Further information on storage conditions	:	See label, package insert or internal guidelines
Other data	:	No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s)	:	Laboratory chemicals

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Contains no substances with occupational exposure limit values.

Personal protective equipment

Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Hand protection	:	The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us.Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Skin and body protection	:	impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke.

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	colourless
Odour	:	none
pH	:	6.0 - 7.0
Flash point	:	no data available
Flammability (solid, gas)	:	The product is not flammable.
Lower explosion limit	:	no data available
Upper explosion limit	:	no data available
Vapour pressure	:	no data available
Partition coefficient: n-octanol/water	:	no data available
Ignition temperature	:	no data available
Thermal decomposition	:	no data available
Viscosity, dynamic	:	no data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

9.2 Other information

Conductivity	:	no data available
Oxidising potential	:	no data available
Surface tension	:	no data available

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Reacts with the following substances: Acids

Oxidizing agents

: Contact with acids liberates very toxic gas.

: Further information: No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : Exposure to light.
Exposure to moisture.
Heat.

10.5 Incompatible materials

Materials to avoid : Strong acids
Strong oxidizing agents
Cyanides

10.6 Hazardous decomposition products

Hazardous decomposition products : Thermal decomposition can lead to release of irritating gases and vapours.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product

Acute toxicity (other routes of administration) : no data available

Skin corrosion/irritation : May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation : May cause irreversible eye damage.

Aspiration toxicity : no data available

Further information : no data available

Components:

guanidinium thiocyanate:

Acute oral toxicity : LD50 Oral: 593 mg/kg, rat

Acute inhalation toxicity : Acute toxicity estimate: 1.5 mg/l, dust/mist, Expert judgement

Acute dermal toxicity	:	Acute toxicity estimate: 1,100 mg/kg, Expert judgement
Acute toxicity (other routes of administration)	:	no data available
Carcinogenicity	:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Further information	:	no data available

Triton X-100:

Acute oral toxicity	:	LD50 Oral: 1,900 - 5,000 mg/kg, rat
Acute inhalation toxicity	:	no data available
Acute dermal toxicity	:	no data available
Acute toxicity (other routes of administration)	:	no data available
Skin corrosion/irritation	:	This information is not available.
Serious eye damage/eye irritation	:	Result: Risk of serious damage to eyes., May cause irreversible eye damage.
Respiratory or skin sensitization	:	Result: no data available
STOT - single exposure	:	Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	:	Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration toxicity	:	no data available
Further information	:	no data available

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Product:

Toxicity to fish	:	no data available
Toxicity to daphnia and other aquatic invertebrates	:	no data available

Toxicity to algae	:	no data available
Toxicity to bacteria	:	no data available

Ecotoxicology Assessment

Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	no data available

Components:

guanidinium thiocyanate:

Toxicity to fish	:	LC50: 89.1 mg/l, 96 h, Poecilia reticulata (guppy)
Toxicity to daphnia and other aquatic invertebrates	:	EC50: 42.4 mg/l, 48 h, Daphnia
Toxicity to algae	:	no data available
Toxicity to bacteria	:	no data available

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Harmful to aquatic life with long lasting effects.
Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	no data available

Triton X-100:

Toxicity to fish	:	LC50: 4 - 8.9 mg/l, 96 h, Pimephales promelas (fathead minnow)
Toxicity to daphnia and other aquatic invertebrates	:	EC50: 18 - 26 mg/l, 48 h, Daphnia magna (Water flea)
Toxicity to algae	:	no data available
Toxicity to bacteria	:	no data available

Ecotoxicology Assessment

Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	no data available

12.2 Persistence and degradability

Product:

Biodegradability : no data available

Components:

guanidinium thiocyanate:

Biodegradability : no data available

Triton X-100:

Biodegradability : > 60 %, Exposure time: 28 d, OECD Test Guideline 301

12.3 Bioaccumulative potential

Product:

Bioaccumulation : no data available

Components:

guanidinium thiocyanate:

Bioaccumulation : no data available

Triton X-100:

Bioaccumulation : no data available

12.4 Mobility in soil

Product:

Mobility : no data available

Distribution among environmental compartments : no data available

Environmental fate and pathways : no data available

Physico-chemical removability : no data available

Components:

guanidinium thiocyanate:

Mobility : no data available

Distribution among environmental compartments : no data available

Environmental fate and pathways : no data available

Physico-chemical removability : no data available

Triton X-100:

Mobility	:	no data available
Distribution among environmental compartments	:	no data available
Environmental fate and pathways	:	no data available
Physico-chemical removability	:	no data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Components:

guanidinium thiocyanate:

Assessment	:	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Triton X-100:

Assessment	:	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

Biochemical Oxygen Demand (BOD)	:	no data available
Dissolved organic carbon (DOC)	:	no data available
Chemical Oxygen Demand (COD)	:	no data available
Adsorbed organic bound halogens (AOX)	:	no data available

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

Components:

guanidinium thiocyanate:

Biochemical Oxygen Demand (BOD)	:	no data available
Dissolved organic carbon (DOC)	:	no data available
Chemical Oxygen Demand (COD)	:	no data available
Adsorbed organic bound halogens (AOX)	:	no data available

Triton X-100:

Biochemical Oxygen Demand (BOD)	:	no data available
Dissolved organic carbon (DOC)	:	no data available
Chemical Oxygen Demand (COD)	:	no data available
Adsorbed organic bound halogens (AOX)	:	no data available

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product	:	The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT
Not dangerous goods

IATA
Not dangerous goods

IMDG
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Harmful by ingestion.
Severe eye irritant

WHMIS Classification : D2B Toxic Material Causing Other Toxic Effects
Severe eye irritant

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Canadian PBT Chemicals : This product contains the following components on the DSL that are classified as Persistent, Bioaccumulative and/or Toxic (PBT) under CEPA:
tetrabromophenol blue

CERCLA Reportable Quantity

SARA 302 Reportable Quantity
Product : This material does not contain any components with a SARA 302 RQ.

SARA 311/312 Hazards : Acute Health Hazard

EPCRA - Emergency Planning and Community Right-to-Know Act

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

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

Clean Air Act

Ozone-Depletion Potential : 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).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

Clean Water Act
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Components	:	guanidinium thiocyanate	30 - 50 %
		water	30 - 50 %
		Triton X-100	10 - 30 %

New Jersey Right To Know

Components	:	guanidinium thiocyanate	30 - 50 %
		water	30 - 50 %
		Triton X-100	10 - 30 %

California Prop 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R22	Also harmful if swallowed.
R32	Contact with acids liberates very toxic gas.
R41	Risk of serious damage to eyes.
R52	Harmful to aquatic organisms.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Further information

The information provided in this 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.

MPLC totalNA Isol.Kit-Lysis/Bind.Buf.Ref