01/01/2024	Kit Components
Product code	Description
AS1140	Maxwell® 16 Cell LEV DNA Purification Kit
Components:	
A828	Elution Buffer
A826	Lysis Buffer
K104	Maxwell® LEV DNA IQ Resin
A937	Alcohol Wash



Printing date 01/01/2024

Reviewed on 12/29/2023

1 Identification

Product identifier Trade name: <u>Elution Buffer</u> **Article number:** A828 **Application of the substance / the mixture** For Laboratory Use

Details of the supplier of the safety data sheet Manufacturer/Supplier: Promega Corporation 2800 Woods Hollow Road Madison, WI 53711 U.S.A. 1-800-356-9526 or (608)-274-4330

Information department: SDS author: chemicalregulatory@promega.com

Emergency telephone number:

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

Classification of the substance or mixture The product is not classified as hazardous according to the Globally Harmonized System (GHS).

Label elements GHS label elements Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0Fire = 0Reactivity = 0OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Not applicable Target Organ(s): Not applicable or unknown **Other hazards** Results of PBT and vPvB assessment **PBT:** Not applicable. vPvB: Not applicable.

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Printing date 01/01/2024

Reviewed on 12/29/2023

Trade name: Elution Buffer

(Contd. of page 1)

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description:

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

Dangerous components: Not applicable

Additional information: For the wording of the listed risk phrases refer to section 15.

4 First-aid measures

Description of first aid measures

General information: No special measures required.

After inhalation: If the patient feels unwell or is concerned, obtain medical advice.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If the patient feels unwell or is concerned, obtain medical advice.

Information for doctor:

Most important symptoms and effects, both acute and delayed None

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:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture

None known

No further relevant information available.

Advice for firefighters No special advice.

Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
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 13 for disposal information.

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Printing date 01/01/2024

Reviewed on 12/29/2023

Trade name: Elution Buffer

(Contd. of page 2)

7 Handling and storage

Handling:

Precautions for safe handling No special measures required. **Information about protection against explosions and fires:** The product is not flammable.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Do not store below -20°C. Protected from light. Information about storage in one common storage facility: Not required. Further information about storage conditions: None.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

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:

Select the glove material considering penetration time, rate of diffusion and degradation time.

Material of gloves

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

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. **Eye protection:** Not required.

9 Physical and chemical properties

Information on basic physical an General Information	d chemical properties	
Appearance:		
Form:	Fluid	
Color:	Colorless	
Odor:	Not determined	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	7.9-8.1	
		(Contd. on page 4)

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Reviewed on 12/29/2023

Trade name: Elution Buffer

	(Contd. of	f page
Change in condition		
Melting point/Melting range:	0 °C (32 °F)	
Boiling point/Boiling range:	100 °C (212 °F)	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	
Ignition temperature:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not determined.	
Density at 20 °C (68 °F):	0.991 g/cm ³ (8.2699 lbs/gal)	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol/water): Viscosity:	Not determined.	
Dynamic at 20 °C (68 °F):	0.0952 mPas	
Kinematic:	Not determined.	
Solvent separation test		
Water:	99.9 %	
VOC content:	0.00 %	
Solids content:	0.1 %	
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. 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 that are relevant for classification: No data available Primary irritant effect: on the skin: No irritant effect. on the eye: No irritating effect.

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Trade name: Elution Buffer

(Contd. of page 4)

Sensitization: In case of skin contact: not sensitising

In case of inhalation: not sensitising Additional toxicological information:

The product is not subject to classifi

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

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

NTP (National Toxicology Program)

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

12 Ecological information

Toxicity

Aquatic toxicity: Not harmful to the aquatic environment Persistence and degradability *Not available* No further relevant information available. **Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. Ecotoxicological effects: **Remark:** Not available Additional ecological information: General notes: Not available. Not known to be hazardous to 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:

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations. **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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Trade name: Elution Buffer

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14 Transport information	
UN-Number DOT, ADR, ADN, IMDG, IATA	Not hazardous for transportation Not applicable
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	None Not applicable
Transport hazard class(es)	None
DOT, ADR, ADN, IMDG, IATA Class	Not applicable
Packing group DOT, ADR, IMDG, IATA	None Not applicable
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex I MARPOL73/78 and the IBC Code	II of Not applicable.
UN "Model Regulation":	Not applicable

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture Sara

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act) Inventory:

All components have the value ACTIVE.

Hazardous Air Pollutants

None of the ingredients are listed.

Proposition 65

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

New Jersey Right-to-Know List:

None of the ingredients are listed.

Pennsylvania Right-to-Know List:

None of the ingredients are listed.

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Trade name: Elution Buffer

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Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value)

None of the ingredients are listed.

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

None of the ingredients are listed.

GHS label elements Not applicable Signal word Not applicable Hazard statements Not applicable Chemical safety assessment

Water hazard class: Generally not hazardous for water. *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:

Promega Corporation Chemical Regulatory Department 2800 Woods Hollow Road Madison, WI Ph:(608)274-4330 chemicalregulatory@promega.com Contact: Date of preparation / last revision 01/01/2024 Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: Internation Civil Aviation Organization ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit



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1 Identification

Product identifier Trade name: Lysis Buffer Article number: A826 Application of the substance / the mixture For Laboratory Use

Details of the supplier of the safety data sheet Manufacturer/Supplier: Promega Corporation 2800 Woods Hollow Road Madison, WI 53711 U.S.A. 1-800-356-9526 or (608)-274-4330

Information department: SDS author: chemicalregulatory@promega.com

Emergency telephone number:

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

Classification of the substance or mixture

BHS05 Corrosion

Skin Corrosion 1C	H314 Causes severe skin burns and eye damage.
Eye Damage 1	H318 Causes serious eye damage.

GHS07

Acute Toxicity - Oral 4H302 Harmful if swallowed.Acute Toxicity - Inhalation 4H332 Harmful if inhaled.

Label elements

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



Signal word Danger

Hazard-determining components of labeling: guanidinium thiocyanate

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Trade name: Lysis Buffer

Hazard statements

Polyethylene glycol tert-octylphenyl ether

Harmful if swallowed or if inhaled. Causes severe skin burns and eye damage. (Contd. of page 1)

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. 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 = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 3Fire = 0 *Reactivity* = 0**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Toxic Highly Toxic Irritant **Primary route(s) of entry:** Dermal Inhalation Oral Target Organ(s): May affect Nervous system (Neurotoxin) May cause Kidney damage (Nephrotoxin) Risk of damage to eyes Affects Gastrointestinal System **Other hazards** Results of PBT and vPvB assessment **PBT:** Not applicable. **vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures Description:

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

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Trade name: Lysis Buffer

		(Contd. of page 2)
Dangerous	components:	
593-84-0	guanidinium thiocyanate	50-75%
9036-19-5	Polyethylene glycol tert-octylphenyl ether	1-5%
75621-03-3	3-[(3-Choalamidopropryl)dimethylammonio]propanesulfonic acid	1-5%
Additional i	nformation: For the wording of the listed risk phrases refer to section 15.	

4 First-aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

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

Take affected persons out into the fresh air.

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation. Seek medical treatment in case of complaints.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Seek immediate medical advice.

Information for doctor:

Most important symptoms and effects, both acute and delayed None

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:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture

None known

No further relevant information available.

Advice for firefighters In the case of fire, wear respiratory protective equipment and chemical protective suit. *Protective equipment:* Mouth respiratory protective device.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Mount respiratory protective device. Remove persons from danger area. Wear protective equipment. Keep unprotected persons away. Wear protective clothing.

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Safety Data Sheet acc. to OSHA HCS

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Trade name: Lysis Buffer

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. 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 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. **Information about protection against explosions and fires:** Keep respiratory protective device available.

The product is not flammable.

Conditions for safe storage, including any incompatibilities Storage:

Requirements to be met by storerooms and receptacles: Do not store below -20°C. Protected from light. **Information about storage in one common storage facility:** Not required. **Further information about storage conditions:** Keep receptacle tightly sealed. **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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 skin. Avoid contact with the eyes and skin. Do not eat or drink while working. Clean skin thoroughly immediately after handling the product. 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: Not required. Material of gloves Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the

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Reviewed on 12/28/2023

Trade name: Lysis Buffer

(Contd. of page 4)

manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

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. **Eye protection:**

Tightly sealed goggles

*

Use equipment for eye protection tested and approved under government NIOSH standards.

Information on basic physical and	chemical properties	
General Information		
Appearance:		
Form:	Fluid	
Color:	Colorless	
Odor:	Not determined	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	6.8-7	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	100 °C (212 °F)	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	
Ignition temperature:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not determined.	
Density at 20 °C (68 °F):	1.12 g/cm³ (9.3464 lbs/gal)	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol/wat	er): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent separation test		
Water:	44.3 %	
VOC content:	0.00 %	
Solids content:	55.7%	

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Trade name: Lysis Buffer

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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.

Incompatible materials:

Exposure to strong acid will result in the generation of toxic gases

Exposure to bleach may result in the generation of toxic gas

Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

593-84-0 guanidinium thiocyanate

OralLD50475 mg/kg (Rat)
By analogy to guanidine hydrochlorideDermalLD50>2,000 mg/kg (Rabbit)
By analogy to Guanidine hydrochloride.

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Causes serious eye damage.

Sensitization: Sensitization possible through inhalation.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: OECD test guideline 471, Ames test.

Harmful

Irritant

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

NTP (National Toxicology Program)

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

12 Ecological information

Toxicity

Aquatic toxicity: Not harmful to the aquatic environment

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Safety Data Sheet acc. to OSHA HCS

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Trade name: Lysis Buffer

Persistence and degradability Not available No further relevant information available. Bioaccumulative potential Not known No further relevant information available. Mobility in soil No further relevant information available. Ecotoxicological effects: **Remark:** Not available Additional ecological information: General notes: Water hazard class 2 (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized. Danger to drinking water if even small quantities leak into the ground. 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:

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations. **Recommended cleansing agent:** Water, if necessary with cleansing agents.

UN-Number		
DOT, ADR, IMDG, IATA	UN1760	
UN proper shipping name		
DOT	Corrosive liquid, n.o.s. solution	
ADR	1760 CORROSIVE LIQUID, N.O.S. solution	
IMDG, IATA	CORROSIVE LIQUID, N.O.S. solution	
Transport hazard class(es)		
DOT		
CORROSVE 8		
Class	8 Corrosive substances	

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Trade name: Lysis Buffer

	(Contd. of pag
Label	8
ADR	
8	
Class	8 (C9) Corrosive substances
Label	8
IMDG, IATA	
<u> </u>	
8	
Class	8 Corrosive substances
Label	8
Packing group	
DOT, ÅDR, ÎMDG, IATA	II
Environmental hazards:	Not applicable.
Special precautions for user	Warning: Corrosive substances
Hazard identification number (Kemler code) EMS Number:): 80 F-A,S-B
LMS Number: Stowage Category	Г-А,5-D В
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:	
ADR	
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
IMDG Limited quantities (LQ)	11.
Excepted quantities (EQ)	L Code: E2
Excepted quantities (LQ)	<i>Maximum net quantity per inner packaging: 30 ml</i>
	Maximum net quantity per outer packaging: 50 ml
UN "Model Regulation":	UN 1760 CORROSIVE LIQUID, N.O.S. SOLUTION, 8, II

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture Sara

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

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US -

US

Safety Data Sheet acc. to OSHA HCS

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Reviewed on 12/28/2023

Trade name: Lysis Buffer

				(Contd. of pag
Section 313 (S	ecific toxic chemical listin	gs):		
None of the ing	redients are listed.			
TSCA (Toxic S	ubstances Control Act) In	entory:		
1	nidinium thiocyanate			ACTIV
-	vethylene glycol tert-octylp	enyl ether		ACTIV
Hazardous Air	Pollutants			I
	redients are listed.			
Proposition 65				
-	wn to cause cancer:			
	redients are listed.			
	wn to cause reproductive to	xicity for females:		
	redients are listed.	ineny joi jenniesi		
	wn to cause reproductive to	vicity for malas.		
	redients are listed.	xicity for mutes.		
		4		
	wn to cause developmental	toxicity:		
, ,	redients are listed.			
	ht-to-Know List:			
	redients are listed.			
-	Right-to-Know List:			
Nona of the in-				
wone of the the	redients are listed.			
Cancerogenity	categories			
Cancerogenity EPA (Environ	categories nental Protection Agency)			
Cancerogenity EPA (Environ None of the ing	categories nental Protection Agency) redients are listed.			
Cancerogenity EPA (Environ None of the ing TLV (Threshol	categories nental Protection Agency) redients are listed. d Limit Value)			
Cancerogenity EPA (Environ None of the ing TLV (Threshol	categories nental Protection Agency) redients are listed.			
Cancerogenity EPA (Environ None of the ing TLV (Thresho None of the ing NIOSH-Ca (N	categories nental Protection Agency) redients are listed. d Limit Value) redients are listed. ntional Institute for Occup	tional Safety and Hea	th)	
Cancerogenity EPA (Environ None of the ing TLV (Thresho None of the ing NIOSH-Ca (N None of the ing	categories nental Protection Agency) redients are listed. d Limit Value) redients are listed. ntional Institute for Occup redients are listed.			
Cancerogenity EPA (Environ None of the ing TLV (Thresho None of the ing NIOSH-Ca (N None of the ing	categories mental Protection Agency) redients are listed. d Limit Value) redients are listed. ttional Institute for Occup redients are listed. ments The product is classif			nized System (GHS
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Cancerogenity EPA (Environ None of the ing TLV (Thresho None of the ing NIOSH-Ca (N None of the ing GHS label elen Signal word D Hazard-determ guanidinium th	categories mental Protection Agency) redients are listed. d Limit Value) redients are listed. ttional Institute for Occup redients are listed. ments The product is classif inger ining components of labels focyanate	ed and labeled accordi		nized System (GHS
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Printing date 01/01/2024

Reviewed on 12/28/2023

Trade name: Lysis Buffer

(Contd. of page 9) 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. Wash contaminated clothing before reuse. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

Chemical safety assessment

Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water. 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:

Promega Corporation Chemical Regulatory Department 2800 Woods Hollow Road Madison, WI Ph:(608)274-4330 chemicalregulatory@promega.com Contact: Date of preparation / last revision 01/01/2024 Abbreviations and acronyms: ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Acute Toxicity - Oral 4: Acute toxicity - Category 4 Skin Corrosion 1C: Skin corrosion/irritation – Category 1C Eye Damage 1: Serious eye damage/eye irritation - Category 1



Printing date 01/01/2024

Reviewed on 01/01/2024

1 Identification

Product identifier Trade name: <u>Maxwell® LEV DNA IQ Resin</u> Article number: K104 Application of the substance / the mixture For Laboratory Use

Details of the supplier of the safety data sheet Manufacturer/Supplier: Promega Corporation 2800 Woods Hollow Road Madison, WI 53711 U.S.A. 1-800-356-9526 or (608)-274-4330

Information department: SDS author: chemicalregulatory@promega.com

Emergency telephone number:

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

Classification of the substance or mixture

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

Label elements GHS label elements Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable Classification system: NFPA ratings (scale 0 - 4) Health = 1Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 1Fire = 0Reactivity = 0OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Not applicable Target Organ(s): Not applicable or unknown **Other hazards** Results of PBT and vPvB assessment **PBT:** Not applicable. vPvB: Not applicable.

(Contd. on page 2)

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Printing date 01/01/2024

Reviewed on 01/01/2024

Trade name: Maxwell® LEV DNA IQ Resin

(Contd. of page 1)

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description:

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

Dangerous components: Not applicable

Additional information: For the wording of the listed risk phrases refer to section 15.

4 First-aid measures

Description of first aid measures

General information: No special measures required.

After inhalation: If the patient feels unwell or is concerned, obtain medical advice.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If the patient feels unwell or is concerned, obtain medical advice.

Information for doctor:

Most important symptoms and effects, both acute and delayed None

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:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture

None known

No further relevant information available.

Advice for firefighters No special advice.

Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.

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

See Section 7 for information on safe handling.

See Section 13 for disposal information.

(Contd. on page 3)

Printing date 01/01/2024

Reviewed on 01/01/2024

Trade name: Maxwell® LEV DNA IQ Resin

(Contd. of page 2)

7 Handling and storage

Handling:

Precautions for safe handling No special measures required. **Information about protection against explosions and fires:** The product is not flammable.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Do not store below -20°C. Protected from light. **Information about storage in one common storage facility:** Not required. **Further information about storage conditions:** None.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

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: Ensure that washing facilities are available at the work place. Breathing equipment: Not required.

Protection of hands: Not required.

Material of gloves

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

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. **Eye protection:** Not required.

Information on basic physical and	chemical properties	
General Information		
Appearance:		
Form:	Fluid	
Color:	Colorless	
Odor:	Not determined	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	5	
Change in condition		
Melting point/Melting range:	0 °C (32 °F)	
Boiling point/Boiling range:	100 °C (212 °F)	

Printing date 01/01/2024

Reviewed on 01/01/2024

Trade name: Maxwell® LEV DNA IQ Resin

		(Contd. of page
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	
Ignition temperature:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not determined.	
Density at 20 °C (68 °F):	1 g/cm ³ (8.345 lbs/gal)	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol/w	ater): Not determined.	
Viscosity:		
Dynamic at 20 °C (68 °F):	0.0952 mPas	
Kinematic:	Not determined.	
Solvent separation test		
Water:	99.1 %	
VOC content:	0.00 %	
Solids content:	0.9 %	
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. 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 that are relevant for classification: No data available Primary irritant effect: on the skin: No irritant effect. on the eye: No irritating effect. Sensitization: In case of skin contact: not sensitising In case of inhalation: not sensitising

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3

3

Trade name: Maxwell® LEV DNA IQ Resin

Additional toxicological information:

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

Carcinogenic categories

IARC (International Agency for Research on Cancer)

7631-86-9 silicon dioxide

1309-37-1 diiron trioxide

NTP (National Toxicology Program)

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

12 Ecological information

Toxicity

Aquatic toxicity: Not harmful to the aquatic environment Persistence and degradability Not available No further relevant information available. **Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. Ecotoxicological effects: **Remark:** Not available Additional ecological information: General notes: Not known to be hazardous to 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:

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations. **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

UN-Number

DOT, ADR, ADN, IMDG, IATA

Not hazardous for transportation Not applicable

(Contd. on page 6)

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Reviewed on 01/01/2024

Trade name: Maxwell® LEV DNA IQ Resin

		(Contd. of page
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	None Not applicable	
Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA Class	Not applicable	
Packing group DOT, ADR, IMDG, IATA	None Not applicable	
Environmental hazards: Marine pollutant:	No	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.	
UN "Model Regulation":	Not applicable	

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture Sara

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act) Inventory:

Hazardous Air Pollutants

None of the ingredients are listed.

Proposition 65

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

New Jersey Right-to-Know List:

1309-37-1 diiron trioxide

Pennsylvania Right-to-Know List:

7631-86-9 silicon dioxide

1309-37-1 diiron trioxide

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Reviewed on 01/01/2024

Trade name: Maxwell® LEV DNA IQ Resin

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A4

Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value) 1309-37-1 diiron trioxide

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

None of the ingredients are listed.

GHS label elements Not applicable Signal word Not applicable Hazard statements Not applicable Chemical safety assessment

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

Promega Corporation Chemical Regulatory Department 2800 Woods Hollow Road Madison, WI Ph:(608)274-4330 chemicalregulatory@promega.com Contact: Date of preparation / last revision 01/01/2024 Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: Internation Civil Aviation Organization ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit



Printing date 01/01/2024

Reviewed on 01/01/2024

1 Identification

Product identifier Trade name: <u>Alcohol Wash</u> Article number: A937 Application of the substance / the mixture For Laboratory Use

Details of the supplier of the safety data sheet Manufacturer/Supplier: Promega Corporation 2800 Woods Hollow Road Madison, WI 53711 U.S.A. 1-800-356-9526 or (608)-274-4330

Information department: SDS author: chemicalregulatory@promega.com

Emergency telephone number:

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

Classification of the substance or mixture

GHS02 Flame

Flammable Liquids 2

H225 Highly flammable liquid and vapor.

GHS07

Eye Irritation 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure 3 H336 May cause drowsiness or dizziness.

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



Signal word Danger

Hazard-determining components of labeling: 2-Propanol

(Contd. on page 2)

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Printing date 01/01/2024

Reviewed on 01/01/2024

Trade name: Alcohol Wash

	(Contd. of page 1)
Hazard statements	
Highly flammable liquid and vapor.	
Causes serious eye irritation.	
May cause drowsiness or dizziness.	
Precautionary statements	
Keep away from heat/sparks/open flames/hot surfaces No smoking.	
Ground/bond container and receiving equipment.	
Use explosion-proof electrical/ventilating/lighting/equipment.	
Use only non-sparking tools.	
Take precautionary measures against static discharge.	
Avoid breathing dust/fume/gas/mist/vapors/spray	
Wash thoroughly after handling.	
Use only outdoors or in a well-ventilated area.	
Wear protective gloves/protective clothing/eye protection/face protection.	
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/showe	er.
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 presen	nt and easy to do.
Continue rinsing.	
Call a poison center/doctor if you feel unwell.	
If eye irritation persists: Get medical advice/attention.	
In case of fire: Use CO2, powder or water spray to extinguish.	
Store in a well-ventilated place. Keep container tightly closed.	
Store in a well-ventilated place. Keep cool.	
Store locked up.	
Dispose of contents/container in accordance with local/regional/national/international regulation	ons.
Classification system:	
NFPA ratings (scale 0 - 4)	
Health = 2	
Fire = 3	
Reactivity = 0	
HMIS-ratings (scale 0 - 4)	
Health = 2	
Fire = 3	
Reactivity = 0	
OSHA Hazard Overview (Criteria according to 29CFR1910.1200):	
Irritant	
Flammable	
Primary route(s) of entry:	
Dermal	
Inhalation	
Target Organ(s):	
May cause Liver damage (Hepatotoxin)	
May affect Nervous system (Neurotoxin)	
May cause Kidney damage (Nephrotoxin)	
Other hazards	
Results of PBT and vPvB assessment	
PBT: Not applicable.	
vPvB: Not applicable.	
	US-

(Contd. on page 3)

Printing date 01/01/2024

Reviewed on 01/01/2024

Trade name: Alcohol Wash

(Contd. of page 2)

20-25%

20-25%

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description:

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

Dangerous components:

64-17-5 ethanol

67-63-0 2-Propanol

Additional information: For the wording of the listed risk phrases refer to section 15.

4 First-aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

Take affected persons out of danger area and lay down.

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

Take affected persons into fresh air and keep quiet.

After skin contact: Generally the product does not irritate the skin.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. *After swallowing:* If the patient feels unwell or is concerned, obtain medical advice.

Information for doctor:

Most important symptoms and effects, both acute and delayed

Headache

Dizziness

Nausea

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

None known

No further relevant information available.

Advice for firefighters In the case of fire, wear respiratory protective equipment and chemical protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Remove persons from danger area. Wear protective equipment. Keep unprotected persons away. Keep away from ignition sources

(Contd. on page 4)

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Printing date 01/01/2024

Reviewed on 01/01/2024

Trade name: Alcohol Wash

(Contd. of page 3)

Wear protective clothing.
Environmental precautions:
Prevent seepage into sewage system, workpits and cellars.
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).
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 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. Use only in well ventilated areas. **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities Storage: Requirements to be met by storerooms and receptacles: Store in a cool location. Information about storage in one common storage facility: Not required. Further information about storage conditions: Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles. Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:			
64-1 2	64-17-5 ethanol		
PEL	Long-term value: 1900 mg/m ³ , 1000 ppm		
REL	Long-term value: 1900 mg/m³, 1000 ppm		
TLV	Short-term value: 1000 ppm		
	A3		
67-63	67-63-0 2-Propanol		
PEL	Long-term value: 980 mg/m³, 400 ppm		
REL	Short-term value: 1225 mg/m³, 500 ppm		
	Long-term value: 980 mg/m³, 400 ppm		
TLV	Short-term value: 400 ppm		
	Long-term value: 200 ppm		
	BEI, A4		
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Ingredients with biological limit values:
67-63-0 2-Propanol

BEI 40 mg/L Medium: urine

Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)

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.

Do not eat or drink while working.

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: Not required.

Material of gloves

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

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. **Eye protection:**

Safety glasses

Use equipment for eye protection tested and approved under government NIOSH standards.

Information on basic physical and General Information	chemical properties	
Appearance: Form:	Fluid	
Color:	Colorless	
Odor:	Alcohol-like	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	7	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	78 °C (172.4 °F)	
Flash point:	13 °C (55.4 °F) (EPA 1010)	
Flammability (solid, gaseous):	Highly flammable.	

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Auto igniting:	425 °C (797 °F)
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard. Product is not explosive. However, formation of explosive air/vapo mixtures are possible.
Explosion limits:	
Lower:	2 Vol %
Upper:	15 Vol %
Vapor pressure at 20 °C (68 °F):	59 hPa (44.3 mm Hg)
Vapor pressure at 50 °C (122 °F):	280 hPa (210 mm Hg)
Density at 20 °C (68 °F):	0.93 g/cm ³ (7.76085 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Fully miscible.
Partition coefficient (n-octanol/wate	r): Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent separation test	
Organic solvents:	50.0 %
Water:	49.4 %
VOC content:	50.00 %
Solids content:	0.6 %
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. Incompatible materials: Oxidizing agents Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

Information on toxicological effects Acute toxicity: LD/LC50 values that are relevant for classification: No data available Primary irritant effect: on the skin: Causes skin irritation. on the eye: Irritating effect.

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Sensitization:

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In case of skin contact: not sensitising In case of inhalation: not sensitising

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: OECD test guideline 471, Ames test. Irritant

Carcinogenic categories

IARC (International Agency for Research on Cancer)

64-17-5 ethanol

67-63-0 2-Propanol

NTP (National Toxicology Program)

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

12 Ecological information

Toxicity

Aquatic toxicity: Not harmful to the aquatic environment Persistence and degradability *Not available* No further relevant information available. Bioaccumulative potential Not known No further relevant information available. Mobility in soil No further relevant information available. Ecotoxicological effects: **Remark:** Not available Additional ecological information: General notes: No data available. **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:

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations. **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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UN-Number	
DOT, ADR, IMDG, IATA	UN1987
UN proper shipping name	
DOT	Alcohols, n.o.s. (Isopropanol, Ethanol)
ADR	1987 ALCOHOLS, N.O.S. (vapour pressure at 50°C not me than 110 kpc) (ISOPPOPANOL (ISOPPOPAL) ALCOHO
	than 110 kPa) (ISOPROPANOL (ISOPROPYL ALCOHO ETHANOL (ETHYL ALCOHOL))
IMDG	ALCOHOLS, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHO
	ETHANOL (ETHYL ALCOHOL))
IATA	ALCOHOLS, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHO
	ETHANOL)
Transport hazard class(es)	
DOT	
RAMARE 1990	
V	
Class	3 Flammable liquids
Label	3
ADR	
3	
Class	3 (F1) Flammable liquids
Label	3
	ر
IMDG, IATA	
\mathbf{V}	
Class	3 Flammable liquids
Label	3
Packing group	II
DOT, ADR, IMDG, IATA	11
Environmental hazards: Marine pollutant:	No
Special precautions for user	Warning: Flammable liquids
Hazard identification number (Kemler code).	
EMS Number:	F-E,S-D
Stowage Category	В
Transport in bulk according to Annex II of	
MARPOL73/78 and the IBC Code	Not applicable.

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	(Contd. of page &
Transport/Additional information:	
ADR	
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 1987 ALCOHOLS, N.O.S. (VAPOUR PRESSURE AT 50°
	NOT MORE THAN 110 KPA) (ISOPROPANOL (ISOPROPY
	ALCOHOL), ETHANOL (ETHYL ALCOHOL)), 3, II

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture Sara

Section 355 (extremely hazardous substances):
None of the ingredients are listed.
Section 313 (Specific toxic chemical listings):
67-63-0 2-Propanol
TSCA (Toxic Substances Control Act) Inventory:
All components have the value ACTIVE.
Hazardous Air Pollutants
None of the ingredients are listed.
Proposition 65
Chemicals known to cause cancer:
None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.
Chemicals known to cause developmental toxicity:
None of the ingredients are listed.
New Jersey Right-to-Know List:
64-17-5 ethanol
67-63-0 2-Propanol
Pennsylvania Right-to-Know List:
64-17-5 ethanol
67-63-0 2-Propanol
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Cancerogenity categories		
EPA (Environmental Protection Agency)		
None of the ingredients are listed.		
TLV (Threshold Limit Value)	_	
64-17-5 ethanol	A3	
67-63-0 2-Propanol	<i>A4</i>	
NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients are listed.		
GHS label elements The product is classified and labeled according to the Globally Harmonized System (Gl Signal word Danger	HS).	
Hazard-determining components of labeling:		
2-Propanol		
Hazard statements		
Highly flammable liquid and vapor.		
Causes serious eye irritation. May cause drowsiness or dizziness.		
Precautionary statements		
Keep away from heat/sparks/open flames/hot surfaces No smoking.		
Ground/bond container and receiving equipment.		
Use explosion-proof electrical/ventilating/lighting/equipment.		
Use only non-sparking tools.		
Take precautionary measures against static discharge.		
Avoid breathing dust/fume/gas/mist/vapors/spray		
Wash thoroughly after handling.		
Use only outdoors or in a well-ventilated area.		
Wear protective gloves/protective clothing/eye protection/face protection.		
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.		
Call a poison center/doctor if you feel unwell.		
If eye irritation persists: Get medical advice/attention.		
In case of fire: Use CO2, powder or water spray to extinguish.		
Store in a well-ventilated place. Keep container tightly closed.		
Store in a well-ventilated place. Keep cool.		
Store locked up.		
Dispose of contents/container in accordance with local/regional/national/international regulations.		
Chemical safety assessment		
Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.		
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:

Promega Corporation Chemical Regulatory Department 2800 Woods Hollow Road Madison, WI Ph:(608)274-4330

US

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chemicalregulatory@promega.com	
Contact:	
Date of preparation / last revision 01/01/2024	
Abbreviations and acronyms:	
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the In	ternational
Carriage of Dangerous Goods by Road)	
IMDG: International Maritime Code for Dangerous Goods	
DOT: US Department of Transportation	
IATA: International Air Transport Association	
EINECS: European Inventory of Existing Commercial Chemical Substances	
ELINCS: European List of Notified Chemical Substances	
CAS: Chemical Abstracts Service (division of the American Chemical Society)	
NFPA: National Fire Protection Association (USA)	
HMIS: Hazardous Materials Identification System (USA)	
VOC: Volatile Organic Compounds (USA, EU)	
LC50: Lethal concentration, 50 percent	
LD50: Lethal dose, 50 percent	
PBT: Persistent, Bioaccumulative and Toxic	
vPvB: very Persistent and very Bioaccumulative	
NIOSH: National Institute for Occupational Safety	
OSHA: Occupational Safety & Health	
TLV: Threshold Limit Value	
PEL: Permissible Exposure Limit	
REL: Recommended Exposure Limit	
BEI: Biological Exposure Limit	
Flammable Liquids 2: Flammable liquids – Category 2 For Institution 24: Surjung and demonstration – Category 24	
Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A Specific Truget Organ Truicity, Single European 2: Specific truget engan tenicity (single european) – Category 2	
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3	