Reviewed on 02/05/2014

1 Identification

· Product identifier

· Trade name: UniverSolTM ES

· Article number: 882480

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

2 Hazard(s) identification

· Classification of the substance or mixture



Skin Sens. 1 H317 May cause an allergic skin reaction.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC



X Harmful

Harmful in contact with skin and if swallowed.



Irritant

May cause sensitisation by skin contact.



Dangerous for the environment

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- · Information concerning particular hazards for human and environment:
- The product has to be labeled due to the calculation procedure of international guidelines.
- · Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

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



GHS07

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

Phenylxylylethane-PXE

· Hazard statements

May cause an allergic skin reaction.

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· Precautionary statements

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Avoid breathing dust/fume/gas/mist/vapours/spray.

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

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

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

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



Health = 2Fire = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Fire = 1

- · 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 the substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 9016-45-9 NLP: 500-024-6	nonylphenol, ethoxylated	25-50%
CAS: 6196-95-8	Phenylxylylethane-PXE	25-50%
CAS: 68648-87-3	Linear Alkylbenzene	25-50%
CAS: 109-86-4 EINECS: 203-713-7 RTECS: KL 5775000	2-methoxyethanol	0.5-<1%

·SVHC

109-86-4 2-methoxyethanol

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.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

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

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: Immediately call 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 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 Not required.
- · Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

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 item 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.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

- · 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.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- \cdot *Specific end use(s) No further relevant information available.*

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8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters

· Components with limit values that require monitoring at the workplace:

109-86-4 2-methoxyethanol

PEL Long-term value: 80 mg/m³, 25 ppm

Skin

REL Long-term value: 0.3 mg/m³, 0.1 ppm

Skir

TLV Long-term value: 0.3 mg/m³, 0.1 ppm

Skin; BEI
WEEL Skin; B

· Ingredients with biological limit values:

109-86-4 2-methoxyethanol

BEI 1 mg/g creatinine

urine

end of shift at end of workweek

2-Methoxyacetic acid

- · 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.

Store protective clothing separately.

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.

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.

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· Eye protection: Goggles recommended during refilling.

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chemical properties	
Timid	
*	
Not determined.	
Not determined.	
Undetermined.	
277 °C (531 °F)	
135 °C (275 °F)	
Not applicable.	
Not determined.	
Product is not selfigniting.	
Product does not present an explosion hazard.	
Not determined.	
Not determined.	
1.3 hPa (1 mm Hg)	
Not determined.	
Not miscible or difficult to mix.	
e r): Not determined.	
Not determined.	
Not determined.	
	Not determined. Undetermined. 277 °C (531 °F) 135 °C (275 °F) Not applicable. Not determined. Product is not selfigniting. Product does not present an explosion hazard. Not determined. Not determined. 1.3 hPa (1 mm Hg) Not determined. Not determined.

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10 Stability and reactivity

- · Reactivity
- · 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	· LD/LC50 values that are relevant for classification:				
9016-45-9	9016-45-9 nonylphenol, ethoxylated				
Oral	LD50	1310 mg/kg (rat)			
Dermal	<i>LD50</i>	>2000 mg/kg (rabbit)			
68648-87-	68648-87-3 Linear Alkylbenzene				
Oral	LD50	>5000 mg/kg (rat)			
Dermal	LD50	>2000 mg/kg (rat)			
		>10200 mg/kg (rabbit)			
109-86-42	?-methoxye	ethanol			
Oral	LD50	2370 mg/kg (rat)			
Dermal	LD50	1280 mg/kg (rabbit)			
Inhalative	LC50/4 h	2000 mg/l (rat)			

- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · 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.

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.

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- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Very toxic for fish
- · 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.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- · 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:

· Class

· Label

· Packing group

· DOT, ADR, IMDG, IATA

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

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

UN-Number DOT, ADR, IMDG, IATA	UN3082
UN proper shipping name	
DOT	Environmentally hazardous substances, liquid, n.o.s. (Linear Alkylbenzene)
ADR	3082 Environmentally hazardous substances, liquid, n.o.s. (Linear Alkylbenzene)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linear Alkylbenzene, nonylphenol, ethoxylated), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linear Alkylbenzene)
Transport hazard class(es)	

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9 Miscellaneous dangerous substances and articles.

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· Environmental hazards:	Product contains environmentally hazardous substance nonylphenol, ethoxylated
· Marine pollutant:	Yes Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· Special precautions for user	Warning: Miscellaneous dangerous substances and articles
· Danger code (Kemler):	60
· EMS Number:	F- A , S - A
· Transport in bulk according to Annex	II of
MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Remarks:	Special marking with the symbol (fish and tree).
· UN ''Model Regulation'':	UN3082, Environmentally hazardous substances, liquid, n.o (Linear Alkylbenzene), 9, III

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 is listed.

· Section 313 (Specific toxic chemical listings):

109-86-4 2-methoxyethanol

· TSCA (Toxic Substances Control Act):

All ingredients are 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:

109-86-4 2-methoxyethanol

· Chemicals known to cause developmental toxicity:

109-86-4 2-methoxyethanol

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

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

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

None of the ingredients is listed.

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· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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



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

Phenylxylylethane-PXE

· Hazard statements

May cause an allergic skin reaction.

· Precautionary statements

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Avoid breathing dust/fume/gas/mist/vapours/spray.

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

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

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 MSDS: Product safety department
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport 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

ACGIH: American Conference of Governmental Industrial Hygienists

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

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