

	OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Re	əv 03.
sue date 06/25/2015		Reviewed on 06/25/2015
I Identification		
· Product identifier		
Product number: Relevant identified No further relevant	icial Perspiration, ISO 3160 1700-0520 d uses of the substance or mixture and uses advised ag information available. on Artificial perspiration manufactured according to ISO 316	-
Manufacturer/Sup Pickering Laborator 1280 Space Park W Mountain View, CA Phone: (650) 694-6 Fax: (650) 968-074 www.pickeringlabs. support@pickeringl Emergency teleph	ies, Inc. /ay 94043 700 9 com abs.com	
2 Hazard(s) ident	tification	
	he substance or mixture not need classification according to OSHA HazCom Star GHS Rev 03.	ndard 29 CFR paragraph (d) of
Hazard pictogram Signal word Non-F	s Non-Regulated Material tem:	
000 Health Fire = Reacti		
HMIS-ratings (sca	le 0 - 4)	
	= 0 tivity = 0	
. ,	erwise classified (HNOC): None	
	formation on ingredients	
CAS: 7732-18-5 CAS: 57-13-6	Water, distilled water, deionized water Urea	90-99% ≤ 1.0%
0.0.01 10-0		

· Chemical characterization: Mixtures

RTECS: YR 6250000 CAS: 7647-14-5

· Description: Mixture of substances listed below with nonhazardous additions.

Sodium Chloride

(Contd. on page 2)

 $\leq 2.5\%$ 



OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/25/2015

Reviewed on 06/25/2015

Trade name: Artificial Perspiration, ISO 3160

· Dangerous Components:				
CAS: 12125-02-9 RTECS: BP 4550000	Ammonium Chloride	≤ 2.5%		
CAS: 50-21-5 RTECS: OD 2800000	Lactic Acid	≤ 2.5%		
CAS: 64-19-7	Acetic Acid liq. 3, H226; I Skin Corr. 1A, H314	≤ 0.5%		

4 First-aid measures

# · Description of first aid measures

- After inhalation: Not anticipated under normal use.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

After swallowing:

Rinse mouth with water ensuring that rinse is not swallowed. Drink 2 glasses of water to dilute and induce vomitting by touching finger to the back of the victims throat. Get medical assistance immediately.

- 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:
- CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment:

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
- Dilute with plenty of water.

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

• Methods and material for containment and cleaning up:

Ensure adequate ventilation.

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

Dispose contaminated material as waste according to section 13.

# 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.

(Contd. on page 3)



OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/25/2015

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# 7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with skin, eyes and clothing

Avoid breathing fumes.

Use personal protection equipment as outlined in section 8.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles: Store frozen
- · 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

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

· Components with occupational exposure limits:

# 12125-02-9 Ammonium Chloride

REL Short-term value: 20 mg/m<sup>3</sup> Long-term value: 10 mg/m<sup>3</sup>

TLV Short-term value: 20 mg/m<sup>3</sup> Long-term value: 10 mg/m<sup>3</sup>

• Additional information: The lists that were valid during the creation of this SDS were used as basis.

- · Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
- Use adequate exhaust ventilation to prevent inhalation of product vapors.

Do not eat or drink while handling product.

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Breathing equipment:

Respiratory protection is not required unless handling of the material produces nuisance airborne concentrations.

Protection of hands:



Protective gloves

- Material of gloves Rubber, latex or vinyl.
- Penetration time of glove material

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

(Contd. on page 4)



Safety Data Sheet (SDS) OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/25/2015

Reviewed on 06/25/2015

Trade name: Artificial Perspiration, ISO 3160

· Eye protection:



Tightly sealed goggles

· Body protection: Lab coat

<ul> <li>Information on basic physical and chemical pro- General Information</li> <li>Appearance: Form: Color: Odor: Odor: Odor:</li> </ul>	perties
Form: Liquid Color: Colorless	
· Odor threshold: Not deter	mined.
· <i>pH-value:</i> Not applied	cable.
<ul> <li>Change in condition</li> <li>Melting point/Melting range: Not deten</li> <li>Boiling point/Boiling range: Not detended</li> </ul>	
• Flash point: Not applie	cable.
• Flammability (solid, gaseous): Not applie	cable.
· Ignition temperature:	
Decomposition temperature: Not deter	mined.
• Auto igniting: Product is	s not self-igniting.
• Danger of explosion: Product d	oes not present an explosion hazard.
<ul> <li>Explosion limits: Lower: Not deten Upper: Not deten</li> </ul>	
· Vapor pressure: Not deter	mined.
Density:Relative densityNot detenVapor densityNot detenEvaporation rateNot detended	mined.
<ul> <li>Solubility in / Miscibility with Water: Aqueous</li> </ul>	solution
• Partition coefficient (n-octanol/water): Not deter	mined.
Viscosity:       Dynamic:       Not deter         Kinematic:       Not deter         Other information       No further	

10 Stability and reactivity

· Reactivity No further relevant information available.

· Chemical stability Stable under normal conditions.



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- 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.

## 1 Toxicological information

### · Information on toxicological effects

- Acute toxicity:
- Primary irritant effect:
- · on the skin: No irritating effect.
- on the eye: No irritating effect.
- · Additional toxicological information:

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

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

#### Carcinogenic categories

• *IARC (International Agency for Research on Cancer)* Substance is not listed.

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.

# 2 Ecological information

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

# 3 Disposal considerations

# · Waste treatment methods

Recommendation:

This product may be mixed with a combustible solvent and burned in a chemical incinerator equipped with an after burner and scruber. This product can also be sent to an EPA approved waste disposal facility. Observe all federal, state and local environmental regulations when disposing of this material.

#### · Uncleaned packagings:

• **Recommendation:** Disposal must be made according to official regulations.



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Issue date 06/25/2015

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Trade name: Artificial Perspiration, ISO 3160

· Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information	
· UN-Number	
DOT, ADN, IMDG, IATA	Non-Regulated Material
	Non-Regulated Material
	Not Regulated
<ul> <li>UN proper shipping name</li> </ul>	·
DOT, ADR, ADN, IMDG, IATA	Non-Regulated Material
<ul> <li>Transport hazard class(es)</li> </ul>	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Non-Regulated Material
· Packing group	
DOT, ADR, IMDG, IATA	Non-Regulated Material
· Environmental hazards:	Not applicable.
<ul> <li>Special precautions for user</li> </ul>	Not applicable.
Transport in bulk according to Annex	r II of
MARPOL73/78 and the IBC Code	Not applicable.
• UN "Model Regulation":	-
15 Regulatory information	
	ulations/legislation specific for the substance or mixture
· Section 355 (extremely hazardous su	bstances):
None of the ingredients are listed.	-

· Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· California 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.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

57-13-6 Urea

• TLV (Threshold Limit Value established by ACGIH)

None of the ingredients are listed.

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

None of the ingredients are listed.

Page 6/7

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OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/25/2015

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Trade name: Artificial Perspiration, ISO 3160

- · GHS label elements Non-Regulated Material
- · Hazard pictograms Non-Regulated Material
- · Signal word Non-Regulated Material
- · Hazard statements Non-Regulated Material
- · National regulations:

The product is subject to be classified according with the latest version of the regulations on hazardous substances.

• State Right to Know				
CAS: 7647-14-5	Sodium Chloride	≤ 2.5%		
CAS: 12125-02-9 RTECS: BP 4550000	Ammonium Chloride	≤ 2.5%		
CAS: 50-21-5 RTECS: OD 2800000	Lactic Acid	≤ 2.5%		
CAS: 57-13-6 RTECS: YR 6250000	Urea	≤ 1.0%		
CAS: 64-19-7 RTECS: AF 1225000	Acetic Acid line Acetic Acid Flam. Liq. 3, H226; line Corr. 1A, H314	≤ 0.5%		
CAS: 7732-18-5	Water, distilled water, deionized water	90-99%		
All ingredients are listed.				

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

# 6 Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

#### · Date of preparation / last revision 06/25/2015 / 8

#### Abbreviations and acronyms:

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways 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) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids, Hazard Category 3 Acute Tox. 4: Acute toxicity, Hazard Category 4 Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3 • \* Data compared to the previous version altered. SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106