Printing date 03/02/2017

Reviewed on 03/02/2017

1 Identification

- · Product identifier
- · Trade name: <u>AR6 Buffer</u>
- **Product number:** AR600125ML, AR600250ML, AR6001KT
- · Application of the substance / the mixture Laboratory chemicals
- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier: PerkinElmer Inc 549 Albany st Boston, MA 02118
- Information department: US Technical Support 800-762-4000
- Emergency telephone number:
- If inside USA, call CHEMTREC at 1-800-424-9300 If outside USA, call CHEMTREC at 1-703-527-3887

2 Hazard(s) identification

· Classification of the substance or mixture

Skin Irritation - Category 2 H315 Causes skin irritation.

Eye Irritation - Category 2A H319 Causes serious eye irritation.

Skin Sensitizer - Category 1 H317 May cause an allergic skin reaction.

• Additional information: For the wording of the listed H phrases refer to section 16.

- · Label elements
- *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: Proclin-300
- · Hazard statements
- Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

- · Precautionary statements
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Wear protective gloves/protective clothing/eye protection/face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

If eye irritation persists: Get medical advice/attention.

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

• Hazard description:

· WHMIS-symbols:

D2B - Toxic material causing other toxic effects

(Contd. on page 2)

 $\leq 1\% \text{ w/w}$

1-5% w/w

60-100% w/w

Material Safety Data Sheet acc. to ISO 11014

Printing date 03/02/2017

Reviewed on 03/02/2017

Trade name: AR6 Buffer

(Contd. of page 1) E - Corrosive material Classification system: NFPA ratings (scale 0 - 4) Health = 1 Fire = 0Reactivity = 0

3 Composition/information on ingredients

· Chemical characterization: Mixtures

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

· Dangerous components:

55965-84-9 Proclin-300

· Additional Components

6132-04-3 Sodium citrate

7732-18-5 Water

4 First-aid measures

- · Description of first aid measures
- After inhalation:
- Supply fresh air and to be sure call for a doctor.
- In case of unconsciousness place patient stably in side position for transportation.
- · After eye contact:
- Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 Fire-fighting measures

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

6 Accidental release measures

• *Personal precautions, protective equipment and emergency procedures* Not required. • *Environmental precautions:* No special measures required.

(Contd. on page 3)

۰CA

Printing date 03/02/2017

Reviewed on 03/02/2017

Trade name: AR6 Buffer

Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). 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.

· Handling:

- *Precautions for safe handling Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.*
- 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 containers: No special requirements.
- · 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 item 7.
- · Control parameters

• Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· Exposure controls

- · Personal protective equipment:
- General protective and hygienic measures: Keep away from food and beverages.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

• Respiratory protection:

In case of brief or low exposure use an approved cartridge filter. In case of intensive or longer exposure use SCBA.

Suitable respiratory protective device recommended.

• Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation (Contd. on page 4)

-CA-

Printing date 03/02/2017

Reviewed on 03/02/2017

Trade name: AR6 Buffer

· Material of gloves

(Contd. of page 3)

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

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

• Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

Information on basic physical and o General Information		
· Appearance:		
Form:	Fluid	
Color:	According to product specification	
· Odor:	Characteristic	
• Odor threshold:	Not determined.	
· pH-value:	Not determined.	
· Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	100 °C	
· Flash point:	Not applicable.	
· Flammability (solid, gaseous):	Not applicable.	
· Ignition temperature:		
Decomposition temperature:	Not determined.	
· Auto igniting:	Product is not selfigniting.	
• Danger of explosion:	Product does not present an explosion hazard.	
· Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
· Vapor pressure at 20 °C:	23 hPa	
· Density:	Not determined.	
· Relative density	Not determined.	
· Vapor density	Not determined.	
• Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water:	Not miscible or difficult to mix.	
· Partition coefficient (n-octanol/wat	er): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
		(Contd. on page

Printing date 03/02/2017

Reviewed on 03/02/2017

Trade name: AR6 Buffer

		(Contd. of page 4)
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	0,0 %	
Water:	97,0 %	
• Other information	No further relevant information available.	

10 Stability and reactivity

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

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- \cdot on the skin: Irritant to skin and mucous membranes.
- on the eye: 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: 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.
- *Mobility in soil* No further relevant information available.
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

(Contd. on page 6)

(Contd. of page 5)

Material Safety Data Sheet acc. to ISO 11014

Printing date 03/02/2017

Reviewed on 03/02/2017

Trade name: AR6 Buffer

13 Disposal considerations

· Waste treatment methods

• *Recommendation:* Must be specially treated adhering to official regulations.

· Uncleaned packagings:

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

UN-Number TDG, IMDG, IATA	UN1760
UN proper shipping name TDG IMDG, IATA	1760 Corrosive liquids, n.o.s. (Proclin-300) CORROSIVE LIQUID, N.O.S. (Proclin-300)
Transport hazard class(es)	
TDG, IMDG, IATA	
Class	8 Corrosive substances
Label	8
Packing group TDG, IMDG, IATA	III
Environmental hazards: Marine pollutant:	No
Special precautions for user	Warning: Corrosive substances
Danger code (Kemler):	80 E 4 6 D
EMS Number: Stowage Category	F-A,S-B A
Stowage Code	SW2 Clear of living quarters.
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.
Transport/Additional information:	
Quantity limitations	On passenger aircraft/rail: 5 L
	On cargo aircraft only: 60 L
TDG	
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
IMDG Limited quantities (LQ)	5L
Excepted quantities (EQ)	SL Code: El
Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml

Printing date 03/02/2017

Reviewed on 03/02/2017

(Contd. of page 6)

Trade name: AR6 Buffer

· UN ''Model Regulation'':

UN 1760 CORROSIVE LIQUIDS, N.O.S. (PROCLIN-300), 8, III

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

7732-18-5 Water

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)

55965-84-9 Proclin-300

7732-18-5 Water

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

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: Proclin-300
 Hazard statements

Causes skin irritation.

Causes skin innunon. Causes serious eye irritation.

May cause an allergic skin reaction.

· Precautionary statements

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

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

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

If eye irritation persists: 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.

(Contd. on page 8)

Printing date 03/02/2017

Reviewed on 03/02/2017

Trade name: AR6 Buffer

(Contd. of page 7)

16 Other information

The information provided in this Material Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer, Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

· Date of preparation / last revision 03/02/2017 / -

 Abbreviations and acronyms: 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) WHMIS: Workplace Hazardous Materials Information System (Canada) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative