Printing date 08/10/2015 Reviewed on 07/16/2015

1 Identification

· Product identifier

· Trade name: ProChem® ES-900

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Chemical Consultants Inc. 1850 Wild Turkey Circle Corona, CA 92880

USA

+1 (951) 735-5511 ncollins@ccidom.com

- · Information department: Product safety department
- · Emergency telephone number: INFOTRAC 1-800-535-5053

2 Hazard(s) identification

· Classification of the substance or mixture



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

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



GHS05

- · Signal word Danger
- $\cdot \textit{Hazard-determining components of labeling:}$

periodic acid

· Hazard statements

H314 Causes severe skin burns and eye damage.

· Precautionary statements

P260 Do not breathe dusts or mists.

P280 Wear protective gloves / eye protection / face protection.

P264 Wash thoroughly after handling.

 $P303 + P361 + P353 \ IF \ ON \ SKIN \ (or \ hair): \ Remove/Take \ off \ immediately \ all \ contaminated \ clothing. \ Rinse \ skin \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P303 + P361 + P363 \ IF \ ON \ SKIN \ (or \ hair): \ P304 + P364 \ IF \ ON \ SKI$

with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

P363 Wash contaminated clothing before reuse.

P337+P313 If eye irritation persists: Get medical advice/attention. P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P405 Store locked up.

(Contd. on page 2)

Printing date 08/10/2015 Reviewed on 07/16/2015

Trade name: ProChem® ES-900

(Contd. of page 1)

P501

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

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



Health = 3Fire = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



3 Health = 3Fire = 1REACTIVITY 0 Reactivity = 0

- · 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:

10450-60-9 periodic acid

10-20%

4 First-aid measures

- · Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation:

Supply fresh air; consult doctor in case of complaints.

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. Then consult a doctor.
- · After swallowing: Drink copious amounts of water and provide fresh air. 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.

Printing date 08/10/2015 Reviewed on 07/16/2015

Trade name: ProChem® ES-900

(Contd. of page 2)

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.

For large spills: 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 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.

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 receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- \cdot *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.

- · 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 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.

(Contd. on page 4)

(Contd. of page 3)

Safety Data Sheet acc. to OSHA HCS

Printing date 08/10/2015 Reviewed on 07/16/2015

Trade name: ProChem® ES-900

· 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/ 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.

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

Melting point/Melting range:

· General Information	
· Appearance:	
Form:	Fluid
Color:	According to product specification
· Odor:	Characteristic
· Odour threshold:	Not determined.

Undetermined.

· pH-value:	Not determined.
· Change in condition	

· Information on basic physical and chemical properties

Boiling point/Boiling range:	100 °C (212 °F)
· Flash point:	> 100 °C (> 212 °F)
· Flash point:	> 100 °C (> 212 °F)

· 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 (68 °F): 23 hPa (17 mm Hg)

• Density at 20 °C (68 °F): 1.09878 g/cm³ (9.169 lbs/gal)

(Contd. on page 5)

Printing date 08/10/2015 Reviewed on 07/16/2015

Trade name: ProChem® ES-900

(Contd. of page 4)

Relative density
Vapour density
Evaporation rate
Not determined.
Not determined.

· Solubility in / Miscibility with

Water: Fully miscible.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined. **Kinematic:** Not determined.

· Solvent content:

Organic solvents: 0.0 %

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 Reacts with reducing agents
- · 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:
- · on the skin: Caustic effect on skin and mucous membranes.
- · on the eye: Strong caustic effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· 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.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Printing date 08/10/2015 Reviewed on 07/16/2015

Trade name: ProChem® ES-900

(Contd. of page 5)

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.
- · Additional ecological information:
- · General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · 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:

Dispose of content and/or container in accordance with local, regional, national and/or international regulations.

- · Uncleaned packagings:
- · Recommendation:

Dispose of content and/or container in accordance with local, regional, national and/or international regulations

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

14 Transport information

- · UN-Number
- · DOT, IMDG, IATA

UN1760

- · UN proper shipping name
- DOT

Corrosive liquids, n.o.s. (periodic acid)

· IMDG, IATA CORROSIVE LIQUID, N.O.S. (periodic acid)

- · Transport hazard class(es)
- $\cdot DOT$



· Class· Label8 Corrosive substances8

· IMDG, IATA



· Class 8 Corrosive substances

(Contd. on page 7)

Printing date 08/10/2015 Reviewed on 07/16/2015

Trade name: ProChem® ES-900

	(Contd. of page
· Label	8
· Packing group	
· DOT, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Corrosive substances
· Danger code (Kemler):	80
· EMS Number:	F- A , S - B
· Transport in bulk according to Annex II	of
MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
\cdot DOT	
· Quantity limitations	On passenger aircraft/rail: 1L
~ ,	On cargo aircraft only: 30L
· 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 1760 CORROSIVE LIQUIDS, N.O.S. (PERIODIC ACID), 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 is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· 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:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

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

None of the ingredients is listed.

(Contd. on page 8)

Printing date 08/10/2015 Reviewed on 07/16/2015

Trade name: ProChem® ES-900

(Contd. of page 7)

· 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.

- · 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:

periodic acid

· Hazard statements

H314 Causes severe skin burns and eye damage.

· Precautionary statements

P260 Do not breathe dusts or mists.

P280 Wear protective gloves / eye protection / face protection.

P264 Wash thoroughly after handling.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

P363 Wash contaminated clothing before reuse.

P337+P313 If eye irritation persists: Get medical advice/attention. P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P405 Store locked up.

P501 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 SDS: Environment protection department.
- · Contact: Mr. Collins
- · Date of preparation / last revision 08/10/2015 / -
- · 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)

(Contd. on page 9)

Printing date 08/10/2015 Reviewed on 07/16/2015

Trade name: ProChem® ES-900

 ${\it HMIS: Hazardous\ Materials\ Identification\ System\ (USA)}$

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1 (Contd. of page 8)

TIC.