Printing date 11/29/2017 Reviewed on 11/29/2017

1 Identification

· Product identifier

· Trade name: 1000 ppm Acetic Acid and 1000

ppm Acrylic Acid w/w in 60:40 Butyl Acrylate - n-Butanol

· Article number: LS-80

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: Aqua Solutions, Inc. 6913 Highway 225 DEER PARK, TX 77536 USA

800-256-2586

· Information department:

Technical Coordinator

Sherman Nelson sherman@aquasolutions.org

· Emergency telephone number:

Chemtrec: 800-424-9300 Canutec: 613-996-6666



2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Harmful if swallowed. Acute Tox. 4 H302 Acute Tox. 4 H332 Harmful if inhaled. Skin Irrit. 2 H315 Causes skin irritation.

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

STOT SE 3 H335-H336 May cause respiratory irritation. 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







GHS02

GHS05

GHS07

· Signal word Danger

(Contd. on page 2)

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Trade name: 1000 ppm Acetic Acid and 1000

ppm Acrylic Acid w/w in 60:40 Butyl Acrylate - n-Butanol

(Contd. of page 1)

· Hazard-determining components of labeling:

Butyl Acrylate

n-Butyl Alcohol

· Hazard statements

Flammable liquid and vapor.

Harmful if swallowed or if inhaled.

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

May cause respiratory 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.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

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

If swallowed: Call a poison center/doctor if you feel unwell.

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.

Specific treatment (see on this label).

Rinse mouth.

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

Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO2, powder or water spray.

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.

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



Health = 3 Fire = 3Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.

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Trade name: 1000 ppm Acetic Acid and 1000

ppm Acrylic Acid w/w in 60:40 Butyl Acrylate - n-Butanol

(Contd. of page 2)

· vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous con	ponents:	
CAS: 141-32-2	Butyl Acrylate	59.9%
CAS: 71-36-3	n-Butyl Alcohol	39.9%
v	zardous Ingredients	
CAS: 64-19-7		0.1%
CAS: 79-10-7	Acrylic Acid	0.1%

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.

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: 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:

CO2, 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:** Mouth respiratory protective device.

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:

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

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(Contd. of page 3)

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.

· Protective Action Criteria for Chemicals

	· ·	
· PAC-1:		
CAS: 141-32-2	Butyl Acrylate	8.3 ppm
CAS: 71-36-3	n-Butyl Alcohol	60 ppm
CAS: 64-19-7	Acetic Acid	5 ppm
CAS: 79-10-7	Acrylic Acid	1.5 ppm
· PAC-2:		
CAS: 141-32-2	Butyl Acrylate	130 ppm
CAS: 71-36-3	n-Butyl Alcohol	800 ppm
CAS: 64-19-7	Acetic Acid	35 ppm
CAS: 79-10-7	Acrylic Acid	46 ppm
· PAC-3:		
CAS: 141-32-2	Butyl Acrylate 48	0 ррт
CAS: 71-36-3	n-Butyl Alcohol 80	00** ppm
CAS: 64-19-7	Acetic Acid 25	0 ррт
CAS: 79-10-7	Acrylic Acid 18	0 ррт

7 Handling and storage

- · Handling:
- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · 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: 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.

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Trade name: 1000 ppm Acetic Acid and 1000

ppm Acrylic Acid w/w in 60:40 Butyl Acrylate - n-Butanol

(Contd. of page 4)

· Control parameters

· Com	ponents with limit values that require monitoring at the workplace:
CAS:	: 141-32-2 Butyl Acrylate
REL	Long-term value: 55 mg/m³, 10 ppm
TLV	Long-term value: 11 mg/m³, 2 ppm DSEN
CAS:	: 71-36-3 n-Butyl Alcohol
PEL	Long-term value: 300 mg/m³, 100 ppm
REL	Ceiling limit value: 150 mg/m³, 50 ppm
	Skin

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

TLV Long-term value: 61 mg/m³, 20 ppm

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.

· 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/ 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

· **Body protection:** Protective work clothing

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Trade name: 1000 ppm Acetic Acid and 1000 ppm Acrylic Acid w/w in 60:40 Butyl Acrylate - n-Butanol

(Contd. of page 5)

Physical and chemical proper	ties
· Information on basic physical and c	hemical properties
· General Information	1 1
· Appearance:	
Form:	Liquid
Color:	Clear
· Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	116 °C (240.8 °F)
· Flash point:	35 °C (95 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	275 °C (527 °F)
Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vap mixtures are possible.
· Explosion limits:	
Lower:	1.2 Vol %
Upper:	9.4 Vol %
· Vapor pressure at 20 °C (68 °F):	6.7 hPa (5 mm Hg)
Density at 20 °C (68 °F):	0.85788 g/cm³ (7.15901 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	e r): Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	40.0 %
VOC content:	40.00 %
	343.2 g/l / 2.86 lb/gl
Solids content:	0.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

· Reactivity No further relevant information available.

(Contd. on page 7)

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Trade name: 1000 ppm Acetic Acid and 1000

ppm Acrylic Acid w/w in 60:40 Butyl Acrylate - n-Butanol

(Contd. of page 6)

- · 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

ATE (Acute Toxicity Estimate)

· Acute toxicity:

711 L (710 m	c 1 oxicity	Billiate)
		854 mg/kg (rat)
Dermal	LD50	2,218 mg/kg (rabbit)
Inhalative	LC50/4 h	18 4 mo/l

Oral	LD50	900 mg/kg (rat)
Dermal	<i>LD50</i>	1,796 mg/kg (rabbit)
Inhalative		
CAS: 71-3	6-3 n-Buty	l Alcohol
\circ 1	I D 50	700 7 ()

Oral	LD50	790 mg/kg (rat)
	LD50	3,400 mg/kg (rabbit)
Inhalative	LC50/4 h	8,000 mg/l (rat)

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Strong irritant with the danger of severe eye injury.
- · 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 (Interna	tional Agency for Research on Cancer)	
CAS: 141-32-2	Butyl Acrylate	3
CAS: 79-10-7	Acrylic Acid	3
· NTP (National	Toxicology Program)	
None of the ing	redients is listed.	
· OSHA-Ca (Oc	cupational Safety & Health Administration)	

12 Ecological information

None of the ingredients is listed.

- · Toxicity
- · Aquatic toxicity: No further relevant information available.

(Contd. on page 8)

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Trade name: 1000 ppm Acetic Acid and 1000

ppm Acrylic Acid w/w in 60:40 Butyl Acrylate - n-Butanol

(Contd. of page 7)

- · 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:

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

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- · 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:

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

14 Transport information

. IIN_Num	hau

· DOT, IMDG, IATA

UN1993

3

· UN proper shipping name

 $\cdot DOT$

· IMDG, IATA

Flammable liquids, n.o.s. (Butyl acrylates, Butanols)

FLAMMABLE LIQUID, N.O.S. (Butyl Acrylate, BUTANOLS)

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



· Class 3 Flammable liquids

· Label

· IMDG, IATA



· Class 3 Flammable liquids

· Label

(Contd. on page 9)

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Trade name: 1000 ppm Acetic Acid and 1000

ppm Acrylic Acid w/w in 60:40 Butyl Acrylate - n-Butanol

	(Contd. of pag
· Packing group	
· DOT, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	30
· EMS Number:	F- E , S - E
· Stowage Category	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: 60 L
~ .	On cargo aircraft only: 220 L
\cdot IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
- • • • •	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1993 FLAMMABLE LIQUIDS, N.O.S. (BUTYL ACRYLATI

15 Regulatory information

- $\cdot \textit{Safety, health and environmental regulations/legislation specific for the substance or \textit{mixture}}$
- · Sara

· Section 355 (extremely hazardous substances):	
None of the ingredients is listed.	
· Section 313 (Specific toxic chemical listings):	
CAS: 141-32-2	Butyl Acrylate
CAS: 71-36-3	n-Butyl Alcohol
CAS: 79-10-7	Acrylic Acid
· TSCA (Toxic Substances Control Act):	
Butyl Acrylate	

n-Butyl Alcohol

Acetic Acid

Acrylic Acid

- · 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.

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A4

Safety Data Sheet acc. to OSHA HCS

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Trade name: 1000 ppm Acetic Acid and 1000

ppm Acrylic Acid w/w in 60:40 Butyl Acrylate - n-Butanol

(Contd. of page 9) · 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) CAS: 71-36-3 n-Butyl Alcohol D· TLV (Threshold Limit Value established by ACGIH) CAS: 141-32-2 Butyl Acrylate A4

CAS: 79-10-7 Acrylic Acid

· 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







GHS02

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

Butyl Acrylate

n-Butyl Alcohol

· Hazard statements

Flammable liquid and vapor.

Harmful if swallowed or if inhaled.

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

May cause respiratory 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.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

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

If swallowed: Call a poison center/doctor if you feel unwell.

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.

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Trade name: 1000 ppm Acetic Acid and 1000

ppm Acrylic Acid w/w in 60:40 Butyl Acrylate - n-Butanol

(Contd. of page 10)

Specific treatment (see on this label).

Rinse mouth.

If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO2, powder or water spray. 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: 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:
- · Date of preparation / last revision

11-29-2017: review SDS for accuracy. STN

Revision 0.0, 06-01-2015: Creation date for SDS. STN

11/29/2017 / -

· 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)

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

 $PBT: \ Persistent, \ Bioaccumulative \ and \ Toxic$

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

Flam. Liq. 3: Flammable liquids - Category 3

Acute Tox. 4: Acute toxicity - Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3