1. Product and Company Identification

Identity (as used on label & list):	**Decon7 Part 1**
Product Description:	Water Soluble Surfactants and Water
Intended Use:	Disinfectant, Mildewstat, Virucide, only for use when added to Decon7 Part 2
Supplier Details:	Decon7 Systems LLC 7575 E Redfield Rd Ste 235 Scottsdale, AZ 85260 480-339-2858
Emergency Telephone Number (with hours of operation)	1-800-424-9300 (24/7)

2. Hazards Identification

Hazardous Classification:

Pictogram:

Signal word: Danger

Hazard Statement: Causes skin burns, causes eye injury, harmful if swallowed or inhaled

Under conditions of intended use this product is not considered hazardous and does not pose a risk to health.

Overview; Ingredients not listed as a carcinogen by IARC, NTP, or OSHA

DOT Hazard Class: Not Applicable
Threshold Value Limit (TLV): Not Determined

Signs and Symptoms of Exposure:

Eyes	Will cause irritation and inflammation characterized by redness, watering, and itching; depending on length of exposure, solution concentration and first aid measures provided.
Skin	Causes skin irritation characterized by reddening. Prolonged contact with product may cause discomfort, no adverse effects expected form absorption of material through skin.
Ingestion	Not expected to be a primary route of exposure, will produce gastrointestinal discomfort.
Inhalation	Not expected to be a primary route of exposure, vapors or mists in unusually high concentration, in poorly ventilated areas may cause irritation of nose and throat characterized by coughing.

3. Composition/ Information on Ingredients

Component	CAS-No.	%Wt.
Alky-Dimethyl-benzylammoniun chloride	68424-85-1	3.2
Pentamethyl-N-Alkyl Trimethylene diammonium Chloride	68607-29-4	1.0

Diethylene Glycol Monobutyl Ether	112-34-8	1.6
1-Dodecanol	112-53-8	0.8
Isobutanol	78-83-1	1.0
Propylene Glycol	57-55-6	20.0
Potassium Hydroxide	1310-58-3	3.2
Potassium Bicarbonate	248-14-6	10.0
Water	Balance	

4. First Aid Measures

Inhalation: Remove to fresh air. If irritation persists, seek medical attention. If breathing has stopped, assist ventilation with a mechanical device or use rescue breathing with a pocket mask.

Skin: Wash skin with water.

Eyes: Flush with water for 15 minutes. If eye irritation persists, seek medical attention.

Ingestion: If swallowed, get immediate medical attention or advice. If victim is conscious and able to swallow, give large amounts of water. Do not give anything by mouth to the person who is unconscious or convulsing. Do not induce vomiting unless directed by a physician.

5. Fire Fighting Measures

Flash Point	Not Applicable
Auto Ignition Temperature:	Not Applicable
Flammable Limits	Not Applicable
Classification	Not Flammable
Extinguishing Media	Not Applicable

Special Fire Fighting Procedures: NFPA Code: Health 1, Fire 0, Reactivity 0
Use water spray to cool fire-exposed surfaces to prevent over-pressure of containers and to protect personnel. Use air-supplied breathing equipment for enclosed areas.

6. Accidental Release Measures

Containment Procedures Stop flow of material if without risk. Dike spill with inert absorbent. Block any potential routes to water systems, sewers, streams, lakes, etc.

Clean-Up Procedures Wear appropriate protective equipment and clothing. Absorb with inert absorbent, shovel material into appropriate container for disposal.

Evacuation Procedures Keep unnecessary personnel away.

7. Handling and Storage

Handling Procedures Avoid contact with skin and eyes. Observe good industrial hygiene practices and wash thoroughly after handling.

Technical Measures Work practices should minimize contact.

Technical Precautions Local exhaust is normally not required unless the process produces a mist.

Storage Procedures Store in tightly closed original container, in well ventilated place, away from strong acids. Prevent from freezing. If frozen, move to warn area.

8. Exposure Controls/ Personal Protection

Ventilation Engineering Controls:	Ventilation should effectively remove and prevent any buildup of any vapor or mist generated from the use of this product

Personal Protection Equipment (PPE)

Respiratory Protection:	If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA rated respiratory protection must be provided.
Skin Protection:	Use Impervious gloves. Use of impervious apron and boots are recommended
Eye/Face Protection:	Wear safety glasses, chemical goggles or a full face shield.
Other Protective Clothing / Equipment:	None.

9. Physical and Chemical Properties

Physical State	Liquid
Appearance and Color	Light yellow to water white liquid
Boiling Point (° F) approximately	212° F
Odor	Ammoniacal
Vapor Pressure (mmHg)	equivalent to water
Vapor Density (air= 1) less than	equivalent to water
Solubility in Water	Complete
Specific Gravity (H_2O= 1) approximately	1.09
Burning Properties	Oxides of carbon and nitrogen may be produced after all moisture is boiled off.
Flammability	Not Flammable
Explosive Properties	Not Explosive
Flashpoint	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
pH of Product	10.7
Evaporation Rate (water= 1)	< 1
Viscosity	≈ water

10. Stability and Reactivity

Chemical Stability:	This is a chemically stable material.
Conditions to Avoid:	Heat from fire sufficient to overpressure container.
Materials to Avoid:	Strong acids
Hazardous Decomposition or Byproducts:	Material will not decompose in use or storage. Oxides of carbon, nitrogen may be produced after all moisture is boiled off in a fire.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Eyes	Will cause irritation and conjunctivitis depending on length of exposure, solution concentration and first aid measures provided.
Skin	Prolonged contact with product may cause discomfort, no adverse effects expected form absorption of material through skin

Ingestion	Not expected to be a primary route of exposure. Rat oral LD_{50} (of mixed Part 1@49%, Part 2@49%, Part 3@2%) is greater than 5000milligrams/kilogram of body weight
Inhalation	Vapors or mists in unusually high concentration, in poorly ventilated areas may cause irritation of nose and throat.

Carcinogenicity: NTP: No IARC Monographs: No OSHA Regulated: No

12. Ecological Information

The product is not expected to be hazardous to the environment.

Mobility: This product is soluble in water and will spread in water systems

Degradability: The rate of degradation has not been determined. Surfactant components are inherently bio-degradable.

13. Disposal Considerations

Waste Material Disposal of in accordance with Local, State and Provincial Environmental Regulations.

Treat container as residue.

14. Transport Information

Not Regulated

15. Regulatory Information

DOT Hazard Class:	Not regulated
EPA Hazardous Substances:	None
SARA 311/312 Hazards:	Immediate (Acute) Health Hazard
SARA Title III:	none
California Proposition 65:	This product does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.
Governmental Inventory Status:	All components comply with TSCA, DSL, AICS, NZIoC, ENCS, KECI, PICCS and IECSC.

16. OTHER INFORMATION

US NFPA Codes	**Health**	**Fire**	**Reactivity**	
	1	0	0	
HMIS Codes	**Health**	**Fire**	**Reactivity**	**PPE**
	1	0	0	Section 8

The information on this SDS reflects the latest information that we have on hazards, properties, and handling of this product under recommended conditions of use. This company believes this information to be accurate and reliable however, the accuracy and completeness is not guaranteed.

1. Product and Company Identification

Identity (as used on label & list):	**Decon7 Part 2**
Product Description:	Hydrogen Peroxide and Water
Intended Use:	Disinfectant, Mildewstat, Virucide, only for use when added to Decon7 Part 1
Supplier Details:	Decon7 Systems LLC 7575 E Redfield Rd Ste 235 Scottsdale, Az 85260 480-339-2858
Emergency Telephone Number (with hours of operation)	1-800-424-9300 (24/7)

2. Hazards Identification

Hazardous Classification:

Pictogram:

Signal word: Danger

Hazard Statement: Causes skin burns, can cause irreversible eye injury, harmful if swallowed or inhaled

Under conditions of intended use this product is not considered hazardous and does not pose a risk to health.

Overview; Ingredients not listed as a carcinogen by IARC, NTP, or OSHA

DOT Hazard Class: Not Applicable
Threshold Value Limit (TLV): Not Determined

Signs and Symptoms of Exposure:

Eyes	Will cause irritation and inflammation characterized by redness, watering, and itching; depending on length of exposure, solution concentration and first aid measures provided.
Skin	Causes skin irritation characterized by reddening. Prolonged contact with product may cause discomfort, no adverse effects expected form absorption of material through skin.
Ingestion	Not expected to be a primary route of exposure, will produce gastrointestinal discomfort.
Inhalation	Not expected to be a primary route of exposure, vapors or mists in unusually high concentration, in poorly ventilated areas may cause irritation of nose and throat characterized by coughing.

3. Composition/ Information on Ingredients

Component	CAS-No.	%Wt.
Hydrogen Peroxide	7722-84-1	7.9
Water	7732-18-5	92.1

4. First Aid Measures

Inhalation: Remove to fresh air. If irritation persists, seek medical attention. If breathing has stopped, assist ventilation with a mechanical device or use rescue breathing with a pocket mask.

Skin: Wash skin with soap and water. Seek medical attention if irritation occurs and persists.

Eyes: Immediately flush with water for 15 minutes, lifting upper and lower lids intermittently. If eye irritation persists, seek medical attention.

Ingestion: If swallowed, get immediate medical attention or advice. If victim is conscious and able to swallow, give large amounts of water. Do not give anything by mouth to the person who is unconscious or convulsing. Do not induce vomiting unless directed by a physician.

5. Fire Fighting Measures

Flash Point	Not Applicable
Auto Ignition Temperature:	Not Applicable
Flammable Limits	Not Applicable
Classification	Not Flammable
Extinguishing Media	Water

Special Fire Fighting Procedures: NFPA Code: Health 1, Fire 0, Reactivity 1, Special OX
Use water spray to cool fire-exposed surfaces to prevent over-pressure of containers and to protect personnel. Use air-supplied breathing equipment for enclosed areas.
Product is non-combustible. On decomposition from excessive heat it will release oxygen which may intensify fire.

6. Accidental Release Measures

Containment Procedures Stop flow of material if without risk. Dike spill with inert material and dilute with water. Hold until Hydrogen Peroxide decomposes. Block any potential routes to water systems, sewers, streams, lakes, etc.

Clean-Up Procedures Wear appropriate protective equipment and clothing. Combustible materials exposed to Decon7 Part 2 should be rinsed with water to remove Hydrogen Peroxide. Keep unnecessary personnel away.

Evacuation Procedures

7. Handling and Storage

Handling Procedures Avoid contact with skin and eyes. Observe good industrial hygiene practices and wash thoroughly after handling.

Technical Measures Work practices should minimize contact. Decon7 Part 2 should be stored in vented containers. Avoid excessive heat and contamination. Contamination may cause decomposition and generation of Oxygen gas that may overpressure container. Do not return unused Decon7 Part 2 to original container. Utensils for handling Decon7 Part 2 should only be made of glass, stainless steel, aluminum, or plastic.

Technical Precautions Local exhaust is normally not required unless the process produces a mist.

Storage Procedures Store in closed vented original container, in well ventilated place, out of direct sunlight, away from combustibles. Prevent from freezing. If frozen, move to warm area.

8. Exposure Controls/ Personal Protection

Ventilation Engineering Ventilation should effectively remove and prevent any buildup of

any vapor or mist generated from the use of this product

Personal Protection Equipment (PPE)

Respiratory Protection:	If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA rated self-contained breathing apparatus should be used. Do not use a mask containing oxidizable elements.
Skin Protection:	Use Impervious gloves. Use of impervious apron and boots (neoprene, nirile, pvc) are recommended.
Eye/Face Protection:	Wear safety glasses, chemical goggles or a full face shield.
Other Protective Clothing / Equipment:	Avoid exposure of cotton and leather clothing and footwear to this product. If exposed rinse well before allowing to dry.

9. Physical and Chemical Properties

Physical State	Liquid
Appearance and Color	water white liquid
Boiling Point	216^{O} F, 102^{O}C
Odor	odorless
Vapor Pressure @30^{O}C (mmHg)	31
Vapor Density (air= 1) less than	equivalent to water
Solubility in Water	Complete
Specific Gravity (H_2O= 1)	1.06
Burning Properties	Not applicable
Flammability	Not Flammable
Explosive Properties	Not Explosive
Flashpoint	Not applicable
Auto-ignition temperature	Not applicable
pH of Product	2.5-3.5
Evaporation Rate (Butyl Acetate= 1)	< 1
Viscosity	≈ water

10. Stability and Reactivity

Chemical Stability:	This is a chemically stable material. Excessive heat or contamination could cause product to become unstable.
Conditions to Avoid:	Excessive heat or contamination
Materials to Avoid:	Reducing agents, iron, copper alloys
Hazardous Decomposition or Byproducts:	Oxygen which will support combustion.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Eyes	Will cause irritation and conjunctivitis depending on length of exposure, solution concentration and first aid measures provided.
Skin	Prolonged contact with product may cause discomfort, no adverse effects expected form absorption of material through skin
Ingestion	Not expected to be a primary route of exposure. Rat oral LD_{50} (of mixed Part 1@49%, Part 2@49%, Part 3@2%) is greater than 5000milligrams/kilogram of body weight. Rat oral LD_{50} of Part 2 alone is greater than 5000milligrams/kilogram of body weight.

Inhalation Vapors or mists in unusually high concentration, in poorly ventilated areas may cause irritation of nose and throat.

Carcinogenicity: NTP: No IARC Monographs: No OSHA Regulated: No

12. Ecological Information

The product is not expected to be hazardous to the environment.

Mobility: This product is soluble in water and will spread in water systems

Degradability: The rate of degradation has ranges from 8 hr. to 20 days in water, 10 – 20 hours in air, and minutes to hours in soil depending upon microbiological activity and metals content.

13. Disposal Considerations

Waste Material Disposal of in accordance with Local, State and Provincial Environmental Regulations. May be diluted, allowing time for decomposition and discharged to suitable treatment system.

Treat container as residue.

14. Transport Information

Not Regulated

15. Regulatory Information

DOT Hazard Class:	Not regulated
EPA Hazardous Substances:	None
SARA 311/312 Hazards:	Immediate (Acute) Health Hazard, Fire TPQ None
SARA Title III:	none
Governmental Inventory Status:	All components comply with TSCA, DSL, AICS, NZIoC, ENCS, KECI, PICCS and IECSC.

16. OTHER INFORMATION

US NFPA Codes	**Health**	**Fire**	**Reactivity**	**Special**
	1	0	1	OX
HMIS Codes	**Health**	**Fire**	**Reactivity**	**PPE**
	1	0	1	Section 8

The information on this SDS reflects the latest information that we have on hazards, properties, and handling of this product under recommended conditions of use. This company believes this information to be accurate and reliable however, the accuracy and completeness is not guaranteed.

SAFETY DATA SHEET

Version 3.4
Revision Date 07/09/2014
Print Date 06/22/2015

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Diacetin

Product Number : W500615
Brand : Aldrich

CAS-No. : 25395-31-7

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832
Fax : +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone # : (314) 776-6555

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : Glycerol diacetate

Formula : $C_7H_{12}O_5$
Molecular Weight : 176.17 g/mol
CAS-No. : 25395-31-7
EC-No. : 246-941-2

No ingredients are hazardous according to OSHA criteria.
No components need to be disclosed according to the applicable regulations.

4. FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact
Wash off with soap and plenty of water.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid breathing vapours, mist or gas.
For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.

Hygroscopic.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters
Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls
General industrial hygiene practice.

Personal protective equipment

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: clear, viscous liquid Colour: colourless
b)	Odour	no data available
c)	Odour Threshold	no data available
d)	pH	no data available
e)	Melting point/freezing point	no data available
f)	Initial boiling point and boiling range	no data available
g)	Flash point	110 °C (230 °F) - closed cup
h)	Evapouration rate	no data available
i)	Flammability (solid, gas)	no data available
j)	Upper/lower flammability or explosive limits	no data available
k)	Vapour pressure	< 1 hPa (< 1 mmHg) at 20 °C (68 °F)
l)	Vapour density	6.08 - (Air = 1.0)
m)	Relative density	1.17 g/cm3 at 25 °C (77 °F)
n)	Water solubility	no data available
o)	Partition coefficient: n-octanol/water	no data available
p)	Auto-ignition temperature	no data available
q)	Decomposition temperature	no data available
r)	Viscosity	no data available
s)	Explosive properties	no data available
t)	Oxidizing properties	no data available

9.2 Other safety information

Relative vapour density 6.08 - (Air = 1.0)

10. STABILITY AND REACTIVITY

10.1 Reactivity
no data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
no data available

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous decomposition products
Other decomposition products - no data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - mouse - 8,500 mg/kg

Inhalation: no data available

Dermal: no data available

no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitisation
no data available

Germ cell mutagenicity
no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
no data available

no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Additional Information
RTECS: AK3325000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
No SARA Hazards

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Glycerol 1,3-di(acetate)	25395-31-7	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Glycerol 1,3-di(acetate)	25395-31-7	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

HMIS Rating

Health hazard:	0
Chronic Health Hazard:	
Flammability:	1
Physical Hazard	0

NFPA Rating

Health hazard:	0
Fire Hazard:	1
Reactivity Hazard:	0

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Preparation Information

Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 3.4 Revision Date: 07/09/2014 Print Date: 06/22/2015