# **Part A- Cleaning Solution 1**

# 1. Identification of the Substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Name: Cleaning Solution 1

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

Use of the substance /mixture: Laboratory substances, manufacture of substances

1.3 Details of the supplier of the safety data sheet

World Precision instruments, Inc.

175 Sarasota Center Blvd.

Sarasota, FL 34240-9258

T 941-371-1003

Emergency number T 941-371-1003

### **SECTION 2: Hazards Identification**

### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture

#### 2.2 Label Elements

GHS-US labelling:

Not a hazardous substance or mixture

#### 2.3 Other Hazards

Other Hazards not contributing to the classification:

None

2.4 Unknown acute toxicity (GHS US)

No data available

# **Section 3 Composition/information on ingredients**

Name	Product Identifier	%	<b>GHS-US Classification</b>
Polyoxyethylene (23)	(CAS No)9002 - 92 - 0	N/A	Non hazardous
lauryl ether			

No components need to be disclosed according to the applicable regulations.

## **SECTION 4: First aid measures**

## 4.1 description of first aid measures

First-aid measures after inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
First-aid measures after skin contact	Wash off with soap and plenty of water.
First-aid measures after eye contact	Flush eyes with water as a precaution.
First-aid measures after ingestion	Rinse mouth with water. Never give anything by mouth to an unconscious person.

# Part A- Cleaning Solution 1

## 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 section 11

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

## **SECTION 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

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further Information

No Data Available

## **SECTION 6: Accidental Release Measures**

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist or gas.

For personal protection see section 8.

#### 6.2 Environmental precautions

No special environmental precautions required.

#### 6.3 Methods and material for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For disposal see section 13

# **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Further processing of any solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

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.

### 7.3 Specific end use

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# **Part A- Cleaning Solution 1**

## **SECTION 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.

#### Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method:

EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **Body Protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., 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 is not required.

Control of environmental exposure

No special environmental precautions required.

# **Part A- Cleaning Solution 1**

# **SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Translucent
Odor	No data available
Odor Threshold	No data available
pH	No data available
Boiling point	No data available
Vapor pressure	No data available
Flash point	No data available
Specific gravity	No data available
Melting point	No data available
Evaporation rate	No data available
Decomposition temperature	No data available
Auto-ignition temperature	No data available

### 9.2 Other information

No data available

## **SECTION 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

No data available

10.6 Hazardous decomposition products

No data available

# **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

Acute toxicity

Inhalation: No data available Dermal: No data available Skin corrosion/irritation

No data available

## Part A- Cleaning Solution 1

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Respiratory or skin sensitization

Patch test on human volunteers did not demonstrate sensitization properties.

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

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available Aspiration hazard No data available

Additional Information RTECS: MD0875000

## **SECTION 12 Ecological information**

12.1 Toxicity

No data available

12.2 Persistence and degradability

Biodegradability Result: 89 % - Readily biodegradable

(OECD Test Guideline 301B)

12.3 Bio accumulative 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

## **SECTION 13: Disposal considerations**

## 13.1Waste treatment methods

Product

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

# Part A- Cleaning Solution 1

Contaminated packaging

Dispose of as unused product.

## **SECTION 14: Transport information**

DOT (US)

Not dangerous goods

**IMDG** 

Not dangerous goods

**IATA** 

Not dangerous goods

## **SECTION 15: Regulatory information**

### SARA 302 Components

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

## SARA 313 Components

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

Poly(oxy-1,2-ethanediyl), α-dodecyl-ω-hydroxy- CAS-No. 9002-92-0

New Jersey Right To Know Components

Poly(oxy-1,2-ethanediyl), α-dodecyl-ω-hydroxy- CAS-No. 9002-92-0

### 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.

## **SECTION 16: Other information**

### **HMIS Rating**

Health hazard: 0
Flammability: 1
Physical Hazard 0
NFPA Rating
Health hazard: 0
Fire Hazard: 1
Reactivity Hazard: 0

# **Part B- Cleaning Solution 2**

## 1. Identification of the Substance/mixture and of the company/undertaking

1.4 Product Identifier

Product Name: Cleaning Solution 2

CAS-No 67-56-1

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

Use of the substance /mixture: Laboratory chemicals

1.6 Details of the supplier of the safety data sheet

World Precision instruments, Inc. 175 Sarasota Center Blvd. Sarasota, FL 34240-9258

T 941-371-1003

Emergency number T 941-371-1003

## **SECTION 2: Hazards Identification**

#### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225 Acute toxicity, Oral (Category 3), H301 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 3), H311

Specific target organ toxicity - single exposure (Category 1), H370

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 Label Elements

Pictogram







Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapor.

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled

H370 Causes damage to organs.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. No

smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

# **Part B- Cleaning Solution 2**

P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ eye protection/ face protection.
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
	Rinse mouth.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated
	clothing. Rinse skin with water/shower.
P304 + P340 + P311	IF INHALED: Remove person to fresh air and keep comfortable
	for breathing. Call a POISON CENTER/doctor.
P307 + P311	IF exposed: Call a POISON CENTER or doctor/ physician.
P362	Take off contaminated clothing and wash before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant
	foam to extinguish.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

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

# **Section 3 Composition/information on ingredients**

3.1 Substances

Synonyms: Methyl alcohol

Formula: CH4O

Molecular weight: 32.04 g/mol
CAS-No.: 67-56-1
EC-No.: 200-659-6
Index-No.: 603-001-00-X

Registration number: 01-2119433307-44-XXXX

Hazardous components

Component Classification Concentration
Methanol Flam. Liq. 2; Acute Tox. 3; <=100%

STOT SE 1; H225, H301 + H311 + H331, H370

For the full text of the H-Statements mentioned in this Section, see Section 16.

# **Part B- Cleaning Solution 2**

### **SECTION 4: First aid measures**

### 4.1 description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 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 section 11.

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

## **SECTION 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

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further Information

Use water spray to cool unopened containers

### **SECTION 6: Accidental Release Measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

For personal protection see section 8.

#### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

# **Part B- Cleaning Solution 2**

## 6.3 Methods and material for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

#### 6.4 Reference to other sections

For disposal see section 13

## **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

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.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

### Components with workplace control parameters

Methanol

CAS-No. 67-56-1

TWA 200.000000 ppm

USA. ACGIH Threshold Limit Values (TLV) Headache. Nausea. Dizziness. Eye damage

Substances for which there is a Biological Exposure Index or Indices

(see BEI® section).

Danger of cutaneous absorption

STEL 250.000000 ppm

USA. ACGIH Threshold Limit Values (TLV)

Headache. Nausea. Dizziness. Eye damage. Substances for which there is a Biological

Exposure Index or Indices (see BEI® section)

Danger of cutaneous absorption

TWA 200.000000 ppm

260.000000 mg/m3

USA. NIOSH Recommended Exposure Limits

Potential for dermal absorption

## **Part B- Cleaning Solution 2**

ST 250.000000 ppm

325.000000 mg/m3

USA. NIOSH Recommended Exposure Limits

Potential for dermal absorption

TWA 200.000000 ppm

260.000000 mg/m3

USA. Occupational Exposure Limits

(OSHA) - Table Z-1 Limits for Air Contaminants

The value in mg/m3 is approximate.

TWA 200 ppm

USA. ACGIH Threshold Limit Values (TLV)

Headache. Nausea. Dizziness. Eye damage. Substances for which there is a Biological

Exposure Index or Indices (see BEI® section)

Danger of cutaneous absorption

STEL 250 ppm

USA. ACGIH Threshold Limit Values (TLV)

Headache. Nausea. Dizziness. Eye damage. Substances for which there is a Biological

Exposure Index or Indices (see BEI® section)

Danger of cutaneous absorption

TWA 200 ppm

260 mg/m3

USA. NIOSH Recommended Exposure Limits

Potential for dermal absorption

ST 250 ppm

325 mg/m3

USA. NIOSH Recommended Exposure Limits

Potential for dermal absorption

TWA 200 ppm

260 mg/m3

USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air

Contaminants

The value in mg/m3 is approximate.

STEL 250 ppm

325 mg/m3

USA, OSHA - TABLE Z-1 Limits for Air Contaminants - 1910,1000

Skin notation

TWA 200 ppm

260 mg/m3

USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Skin notation

C 1.000 ppm

California permissible exposure limits for chemical contaminants

(Title 8, Article 107)

Skin

# **Part B- Cleaning Solution 2**

PEL 200 ppm

260 mg/m3

California permissible exposure limits for chemical contaminants

(Title 8, Article 107)

Skin

STEL 250 ppm

325 mg/m3

California permissible exposure limits for chemical contaminants

(Title 8, Article 107)

Skin

## Biological occupational exposure limits

Methanol

CAS-No. 67-56-1

15.0000 mg/l

Urine. ACGIH – Biological Exposure Indices (BEI) End of shift (As soon as possible after exposure ceases)

### Derived No Effect Level (DNEL)

Application Area	Exposure routes	Health effect	<u>Value</u>
Workers	Skin contact	Long-term systemic effects	40mg/kg BW/d
Consumers	Skin contact	Long-term systemic effects	8mg/kg BW/d
Consumers	Ingestion	Long-term systemic effects	8mg/kg BW/d
Workers	Skin contact	Acute systemic effects	40mg/kg BW/d
Consumers	Skin contact	Acute systemic effects	8mg/kg BW/d
Consumers	Ingestion	Acute systemic effects	8mg/kg BW/d
Workers	Inhalation	Acute systemic effects	260 mg/m3
Workers	Inhalation	Acute local effects	260 mg/m3
Workers	Inhalation	Long-term systemic effects	260 mg/m3
Workers	Inhalation	Long-term local effects	260 mg/m3
Consumers	Inhalation	Acute systemic effects	50 mg/m3
Consumers	Inhalation	Acute local effects	50 mg/m3
Consumers	Inhalation	Long-term systemic effects	50 mg/m3
Consumers	Inhalation	Long-term local effects	50 mg/m3

### Predicted No Effect Concentration (PNEC)

Soil 23.5 mg/kg
Marine water 15.4 mg/l
Fresh water 154 mg/l
Fresh water sediment 570.4 mg/kg
Onsite sewage treatment plant 100 mg/kg

## 8.2 Exposure controls

## Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## **Part B- Cleaning Solution 2**

## Personal protective equipment

### Eye/face protection

Face shield and safety glasses 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.

### Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

#### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm Break through time: 31 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test

method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### **Body Protection**

Complete suit protecting against chemicals, Flame retardant antistatic protective 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

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

# **Part B- Cleaning Solution 2**

## **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

Appearance Form: liquid Color: colorless Odor pungent

Odor Threshold No data available PH No data available Melting point -98 °C (-144 °F) boiling point 64.7 °C (148.5 °F)

Flash point  $9.7 \, ^{\circ}\text{C} \, (49.5 \, ^{\circ}\text{F})$  - closed cup

Evaporation rate No data available Flammability (solid, gas) No data available

Upper/lower Upper explosion limit: 36%(V) Lower explosion limit: 6%(V)

explosive limits

Vapor pressure 130.3 hPa (97.7 mmHg) at 20.0 °C (68.0 °F)

546.6 hPa (410.0 mmHg) at 50.0 °C (122.0 °F) 169.27 hPa (126.96 mmHg) at 25.0 °C (77.0 °F)

Vapor density 1.11

Relative density 0.791 g/mL at 25 °C (77 °F) Water solubility completely miscible Partition coefficient log Pow: -0.77

n-octanol/ water

Auto-ignition 455.0 °C (851.0 °F) at 1,013 hPa (760 mmHg)

temperature

Decomposition No data available

temperature

Viscosity No data available Explosive properties Not explosive

Oxidizing properties The substance or mixture is not classified as oxidizing.

## 9.2 Other Safety Information

Minimum ignition energy 0.14 mJ Conductivity < 1  $\mu$ S/cm Relative vapor density 1.11

## **SECTION 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

Vapors may form explosive mixture with air.

# **Part B- Cleaning Solution 2**

### 10.4 Conditions to avoid

Heat, flames and sparks

## 10.5 Incompatible materials

Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids

## 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

## **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

Acute toxicity

LDLO Oral - Human - 143 mg/kg

Remarks: Lungs, Thorax, or Respiration: Dyspnea. Ingestion may cause gastrointestinal irritation, nausea, vomiting

and diarrhea.

LD50 Oral - Rat - 1,187 - 2,769 mg/kg

LC50 Inhalation - Rat - 4 h - 128.2 mg/l

LC50 Inhalation - Rat - 6 h - 87.6 mg/l

LD50 Dermal - Rabbit - 17,100 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Respiratory or skin sensitization

Maximization Test - Guinea pig

Does not cause skin sensitization.

(OECD Test Guideline 406)

## Germ cell mutagenicity

Ames test

S. typhimurium

Result: negative

in vitro assay

fibroblast

Result: negative

Mutation in mammalian somatic cells

•

Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)

Mouse - male and female

Result: negative

#### 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.

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

## **Part B- Cleaning Solution 2**

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

Damage to fetus not classifiable

Fertility classification not possible from current data.

Specific target organ toxicity - single exposure

Causes damage to organs.

Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

No aspiration toxicity classification

**Additional Information** 

RTECS: PC1400000

Effects due to ingestion may include: Headache, Dizziness, Drowsiness, metabolic acidosis, Coma, Seizures.,

Methyl alcohol may be fatal or cause blindness if swallowed.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

## **SECTION 12 Ecological information**

### 12.1 Toxicity

Toxicity to fish mortality LC50 - Lepomis macrochirus (Bluegill) - 15,400.0 mg/l - 96 h

NOEC - Oryzias latipes - 7,900 mg/l - 200 h

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - > 10,000.00 mg/l - 48 h

other aquatic invertebrates

Toxicity to algae Growth inhibition EC50 - Scenedesmus capricornutum (fresh water algae) -

22,000.0 mg/l - 96 h

### 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 5 d

Result: 72 % - rapidly biodegradable

Biochemical Oxygen

600 - 1,120 mg/g

Demand (BOD)

Chemical Oxygen 1,420 mg/g

Demand (COD)

Theoretical oxygen 1,500 mg/g

demand 1,500 mg/g

### 12.3 Bio accumulative potential

Bioaccumulation Cyprinus carpio (Carp) - 72 d

at 20 °C - 5 mg/l

Bioconcentration factor (BCF): 1.0

12.4 Mobility in soil Will not adsorb on soil.

# **Part B- Cleaning Solution 2**

## 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

Additional ecological

Avoid release to the environment.

information

Stability in water

at 19 °C83 - 91 % - 72 h

Remarks: Hydrolyses on contact with water. Hydrolyses readily.

## **SECTION 13: Disposal considerations**

### 13.1Waste treatment methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging

Dispose of as unused product.

## **SECTION 14: Transport information**

DOT (US)

UN number: 1230 Class: 3 Packing group: II

Proper shipping name: Methanol Reportable Quantity (RQ): 5000 lbs. Reportable Quantity (RQ): 100 lbs. Reportable Quantity (RQ): 5000 lbs. Poison Inhalation Hazard: No

**IMDG** 

UN number: 1230 Class: 3 (6.1) Packing group: II EMS-No: F-E, S-D

Proper shipping name: METHANOL

**IATA** 

UN number: 1230 Class: 3 (6.1) Packing group: II

Proper shipping name: Methanol

# **SECTION 15: Regulatory information**

### SARA 302 Components

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

## SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Methanol CAS-No. 67-56-1 Revision Date 2007-07-01

### SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

# **Part B- Cleaning Solution 2**

Reportable Quantity F003 lbs.

Massachusetts Right To Know Components

Methanol CAS-No. 67-56-1 Revision Date 2007-07-01

Pennsylvania Right To Know Components

Methanol CAS-No 67-56-1 Revision Date 2007-07-01

New Jersey Right To Know Components

Methanol CAS-No. 67-56-1 Revision Date 2007-07-01

California Prop. 65 Components

WARNING: This product contains a chemical known to the State of California to cause birth defects or other

reproductive harm.

Methanol CAS-No. 67-56-1 Revision Date 2012-03-16

## **SECTION 16: Other information**

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity
Flam. Liq. Flammable liquids

H225 Highly flammable liquid and vapor.

H301 Toxic if swallowed.

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

H370 Causes damage to organs.

**HMIS Rating** 

Health hazard: 2 Chronic Health Hazard: \*

# **Part C- Cleaning Solution 3**

# 1. Identification of the Substance/mixture and of the company/undertaking

1.7 Product Identifier

Product Name: Cleaning Solution 3

- 1.8 Relevant identified uses of the substance or mixture and uses advised against General Laboratory Reagent
- 1.9 Details of the supplier of the safety data sheet

World Precision instruments, Inc. 175 Sarasota Center Blvd. Sarasota, FL 34240-9258 T 941-371-1003 Emergency number T 941-371-1003

## **SECTION 2: Hazards Identification**

### 2.1 Classification of the substance or mixture

Hazard Class Acute Toxicity - Oral	Category Category 4	Hazard Statement H302	Precautionary Statements P264, P270, P301+P312, P330, P501
Acute Toxicity - Inhalation	Category 3	H331	P261, P271, P304+P340, P311, P321, P403+P233, P405, P501
Skin Corrosion / Irritation	Category 1	H314	P260, P264, P280, P301+P330+P331, P303+P361+P353, P363 P304+P340, P310 P321, P305+P351+P338, P405, P501
Eye Damage / Irritation	Category 1	H318	P280, P305+P351+P338, P310
Respiratory Sensitizer	Category 1	H334	P261, P285, P304+P341, P342+P311, P501
Specific Target Organs/ Systemic Toxicity Following Single Exposure	Category 1	H370	P260, P264, P270, P307+P311, P321, P405, P501
Specific Target Organs/ Systemic Toxicity Following Repeated Exposure	Category 1	H372	P260, P264, P270, P314, P501
Corrosive to Metals	Category 1	H290	P234, P390, P406

# **Part C- Cleaning Solution 3**

Hazardous to the Aquatic Environment (Acute)

Category 2

H401

P273, P501

### 2.2 GHS Label Elements

## Pictograms



Signal Word: Danger

### **Hazard Statements**

P314

P321

Hazard Number	Hazard Statement
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.
Precautionary Number	Precautionary Statement
P234	Keep only in original container.
P260	Do not breathe dust, fumes or mist.
P261	Avoid breathing dust, fumes or mist.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P285	In case of inadequate ventilation wear respiratory protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with
	water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304+P341	IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable
	for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P307+P311	IF exposed: Call a POISON CENTER or physician.
P310	Immediately call a POISON CENTER or physician.
P311	Call a POISON CENTER or physician.
D011	

Get medical attention if you feel unwell.

Specific treatment (Wash areas of contact with water).

## **Part C- Cleaning Solution 3**

P330 Rinse mouth.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or physician.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

P501 Dispose of contents in accordance with local, state, federal and international regulations.

#### 2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

## 2.4. Hazards not Otherwise Classified or Covered by GHS

No data available

## **Section 3 Composition/information on ingredients**

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Water	$H_2O$	18.01 g/mol	7732-18-5	92.01%
Hydrochloric Acid	HCl	36.46 g/mol	7647-01-0D	7.99%

### **SECTION 4: First aid measures**

## 4.1 Description of first aid measures

First-aid measures after inhalation	If breathing is difficult, remove person to fresh air and keep
	comfortable for breathing.
First-aid measures after skin contact	Take off immediately all contaminated clothing. Rinse skin with water.
	May cause irritation, redness, and pain.
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact
	lenses, if present and easy to do. Continue rinsing. May cause severe
	burns and permanent damage.
First-aid measures after ingestion	Rinse mouth. Do NOT induce vomiting. Dilute with water or milk. Do

not induce vomiting. Call a physician if necessary.

## 4.2 Most important symptoms and effects, both acute and delayed

DANGER! Corrosive liquid! Causes severe burns to all areas of contact. May be fatal if swallowed. Wash areas of contact with water immediately for at least 15 minutes. Inhalation can cause coughing, choking, inflammation of the nose, throat and upper respiratory tract. If ingested, give large quantity of water. Do not induce vomiting. Call a physician immediately. EYE CONTACT: May cause severe burns and permanent damage. SKIN CONTACT: May cause irritation, redness, and pain.

## **Part C- Cleaning Solution 3**

4.3 Indication of any immediate medical attention and special treatment needed Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water).

## **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media

Use any means suitable for extinguishing surrounding fire (water or water spray). Neutralize with soda ash or slaked lime.

### 5.2 Special hazards arising from the substance or mixture

Not considered to be a fire or explosion hazard. May react with metals to release flammable Hydrogen gas.

### 5.3 Advice for firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire. Structural firefighter's protective clothing is ineffective for fires involving Hydrochloric Acid.

### **SECTION 6: Accidental Release Measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

### 6.2 Methods and material for containment and cleaning up

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Wash site with soda ash solution. Always dispose of in accordance with local regulations.

## **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Store in corrosive resistant container with a resistant inner liner. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

## **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

Chemical Name Hydrochloric Acid (7647-01-0)	Limit Type TLV-Ceiling	Country USA	Exposure Limit 2 ppm Ceiling	Information Source ACGIH - Threshold Limit (TLV-C)
Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	5 ppm Ceiling 7 mg/m³ Ceiling	U.S OSHA - Final PELs Ceiling Limits

## 8.2 Exposure controls

Engineering Controls: Use only outdoors or in a well-ventilated area. No specific controls are needed. Normal

room ventilation is adequate.

Respiratory Protection: In case of inadequate ventilation wear respiratory protection. Normal room ventilation is

adequate. If necessary, wear a respirator equipped with an acid gas cartridge.

# **Part C- Cleaning Solution 3**

Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves. Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.

## 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate. If necessary, wear a respirator equipped with an acid gas cartridge. Chemical resistant gloves. Safety glasses or goggles.

## **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

	<u> </u>
Physical state	Liquid
Appearance	Colorless Liquid
Odor	Pungent
Odor Threshold	No data available
рН	<1
Boiling point	Approx. 100°C
Vapor pressure	No data available
Flash point	No data available
Specific gravity	No data available
Freezing point	Approx. 0°C
Evaporation rate	No data available
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Relative Density	1.036
Solubility	Miscible

### 9.2 Other information

No data available

# **SECTION 10: Stability and Reactivity**

### 10.1 Reactivity

Stable under recommended storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Keep only in original container.

### 10.5 Incompatible materials

Most metals, Alkalis, active metals, Cyanides, Sulfides, Sulfites, Metal Oxides, Formaldehyde.

# **Part C- Cleaning Solution 3**

10.6 Hazardous decomposition products No data available

## **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

#### Acute Toxicity - Oral Exposure:

Harmful if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. Dispose of contents in accordance with local, state, federal and international regulations.

Acute Toxicity - Dermal Exposure: Not applicable.

#### Acute Toxicity - Inhalation Exposure:

Toxic if inhaled. Avoid breathing dust, fumes or mist. Use only outdoors or in a well-ventilated area. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Acute Toxicity - Other Information:

LD50, Oral, Rabbit (Hydrochloric Acid) 900 mg/kg; Details of toxic effects not reported other than lethal dose value.

LCLo, inhalation, human: 3000 ppm/5 minutes: No toxic effects noted.

#### Skin Corrosion and Irritation:

Causes severe skin burns and eye damage. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Serious Eye Damage and Irritation:

Causes serious eye damage. Wear protective gloves and eye protection. 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 or physician.

#### Respiratory Sensitization:

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Avoid breathing dust, fumes or mist. In case of inadequate ventilation wear respiratory protection. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Dispose of contents in accordance with local, state, federal and international regulations.

Skin Sensitization: Not applicable.

Germ Cell Mutagenicity:

Not applicable.

## **Part C- Cleaning Solution 3**

Carcinogenicity: Not applicable.

Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Causes damage to organs. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Repeated Exposure:

Causes damage to organs through prolonged or repeated exposure. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

## **SECTION 12 Ecological information**

#### 12.1 Toxicity

Toxic to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

12.2 Persistence and degradability

Data not available

12.3 Bio accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

No data available

# **SECTION 13: Disposal considerations**

13.1Waste treatment methods

No data available

## **Part C- Cleaning Solution 3**

## **SECTION 14: Transport information**

14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

UN Number: UN1789

Proper Shipping Name: Hydrochloric Acid Solution

Hazard Class: 8 Packing Group: III Hazard Placard Labels:



14.2. Transportation by Air - International Air Transport Association (IATA)

UN Number: UN1789

Proper Shipping Name: Hydrochloric Acid Solution

Hazard Class: 8 Packing Group: III Hazard Placard Labels:



## **SECTION 15: Regulatory information**

- 15.1. Occupational Safety and Health Administration (OSHA) Hazards Not listed.
- 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Hydrochloric Acid (CAS # 7647-01-0): 500 lb. TPQ (gas only)

Hydrochloric Acid (CAS # 7647-01-0): 5000 lb. EPCRA RQ (gas only)

- 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals Hydrochloric Acid (CAS # 7647-01-0): 5000 lb. final RQ; 2270 kg final RQ
- 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Hydrochloric Acid (CAS # 7647-01-0): 1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

15.5. Massachusetts Right-to-Know Substance List Hydrochloric Acid (CAS # 7647-01-0): Extraordinarily hazardous

## **Part C- Cleaning Solution 3**

### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Hydrochloric Acid (CAS # 7647-01-0): Environmental hazard

Hydrochloric Acid (CAS # 7647-01-0): Present

Water (CAS # 7732-18-5): Present

### 15.7. New Jersey Worker and Community Right-to-Know Components

Hydrochloric Acid (CAS # 7647-01-0): corrosive

Hydrochloric Acid (CAS # 7647-01-0): SN 1012

Hydrochloric Acid (CAS # 7647-01-0): SN 1012 TPQ: 500 lb. (>=37% concentration); SN 2909 TPQ: 500 lb

(Hydrogen chloride gas only. NJ uses UN1050 for reporting purposes)

### 15.8. California Proposition 65

Not listed.

#### 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Hydrochloric Acid (CAS # 7647-01-0): Present

Water (CAS # 7732-18-5): Present

### 15.10. United States of America Toxic Substances Control Act (TSCA) List

Hydrochloric Acid (CAS # 7647-01-0): Present [T]

Water (CAS # 7732-18-5): Present

### 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS),

European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP) Not listed.

### **SECTION 16: Other information**

#### 16.1. Full Text of Hazard Statements and Precautionary Statements

May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life.

Keep only in original container. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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. IF exposed: Call a POISON CENTER or physician. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water). If experiencing respiratory symptoms: Call a POISON CENTER or physician.

Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner. Dispose of contents in accordance with local, state, federal and international regulations.

### 16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable. Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable

# **Part C- Cleaning Solution 3**

Health Hazards Not Otherwise Classified (HHNOC): Not Applicable Biohazardous Infectious Materials Hazard Class: Not Applicable

## 16.3. National Fire Protection Association (NFPA) Rating

Health: 3 Flammability: 0 Reactivity: 0 Special Hazard:



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