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	Print Date: 5/3/2017
	SDS Number: R0717516
Liquapar™ OPTIMA preservative ™ Trademark, Ashland or its subsidiaries, registered in various countries 829522	Version: 1.2

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Liquapar™ OPTIMA
preservative
™ Trademark, Ashland or its subsidiaries, registered in
various countries

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

Recommended use : Preservative

<p>Details of the supplier of the safety data sheet Ashland P.O. Box 2219 Columbus, OH 43216 United States of America (USA) 614-790-3333</p> <p>EHSProductSafety@ashland.com</p>	<p>Emergency telephone number 1-800-ASHLAND (1-800-274-5263)</p> <p>Regulatory Information Number 1-800-325-3751</p> <p>Product Information 614-790-3333</p>
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SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Eye irritation : Category 2A

GHS label elements

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : Causes serious eye irritation.

Precautionary Statements : **Prevention:**
Wash skin thoroughly after handling.
Wear eye protection/ face protection.
Response:

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IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do. Continue
 rinsing.
 If eye irritation persists: Get medical advice/ attention.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
2-PHENOXYETHANOL	122-99-6	Acute Tox. 4; H302 Eye Irrit. 2A; H319	70.015

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
 Show this safety data sheet to the doctor in attendance.
 Do not leave the victim unattended.
- If inhaled : If breathed in, move person into fresh air.
 If unconscious, place in recovery position and seek medical
 advice.
 If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is
 recommended that exposed areas be cleaned by washing
 with soap and water.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
 Remove contact lenses.
 Protect unharmed eye.
- If swallowed : IF SWALLOWED: Call a POISON CENTER/doctor if you feel
 unwell.
 Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.

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- Most important symptoms and effects, both acute and delayed : Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
 stomach or intestinal upset (nausea, vomiting, diarrhea)
 irritation (nose, throat, airways)
 pain in the abdomen and lower back
 acute kidney failure (sudden slowing or stopping of urine production)
 Causes serious eye irritation.
- Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
 Water spray
 Foam
 Carbon dioxide (CO₂)
 Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release.
 Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : carbon dioxide and carbon monoxide
 phenols
 toxic fumes
- Specific extinguishing methods :
 Product is compatible with standard fire-fighting agents.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.



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SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapours/dust. Do not smoke. Container hazardous when empty. Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8. Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : 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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters

Components	CAS-No.

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2-PHENOXYETHANOL	122-99-6
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Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection : Wear as appropriate:
 Impervious clothing
 Safety shoes
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.
 Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : Wash hands before breaks and at the end of workday.
 When using do not eat or drink.
 When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Colour : clear

Odour : mild

Odour Threshold : No data available

pH : 7.0 - 7.1
 Concentration: 10

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : 121.11 °C Value for Component

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Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: > 1.05 - < 1.15 g/cm ³ (25 °C)
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Oxidizing properties	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Product will not undergo hazardous polymerization.
Conditions to avoid	: excessive heat Do not allow evaporation to dryness.

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Incompatible materials : strong alkalis
 Strong bases
 Strong oxidizing agents

Hazardous decomposition products : carbon dioxide and carbon monoxide
 phenols

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
 Skin contact
 Eye Contact
 Ingestion

Acute toxicity

Not classified based on available information.

Components:

2-PHENOXYETHANOL:

Acute oral toxicity : LD50 (Rat): 1,850 mg/kg
 Method: OECD Test Guideline 401

Acute inhalation toxicity : Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD50 (Rat): 14,391 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks: May cause skin irritation in susceptible persons.

Components:

2-PHENOXYETHANOL:

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Components:

2-PHENOXYETHANOL:

Species: Rabbit

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Result: Irritating to eyes.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

2-PHENOXYETHANOL:

Species: Guinea pig

Assessment: Does not cause skin sensitisation.

Method: OECD Test Guideline 406

Germ cell mutagenicity

Not classified based on available information.

Components:

2-PHENOXYETHANOL:

Genotoxicity in vitro

: Test Type: Ames test

Test species: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Components:

2-PHENOXYETHANOL:

Effects on foetal
 development

: Test Type: Pre-natal

Species: Rat

Application Route: Oral

General Toxicity Maternal: No observed adverse effect level:

ca. 300 mg/kg bw/day

Method: OPPTS 870.3700

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity**Components:**

2-PHENOXYETHANOL:

Species: Rat, male and female

NOAEL: 369 mg/kg

Application Route: Oral

Method: OECD Test Guideline 408

Species: Rabbit, male and female

NOAEL: 500 mg/kg

Application Route: Dermal

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Aspiration toxicity

Not classified based on available information.

Further information**Product:**

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

Ecotoxicology Assessment

Acute aquatic toxicity : Acute aquatic toxicity Category 3; Harmful to aquatic life.

Chronic aquatic toxicity : Not classified based on available information.

Components:

2-PHENOXYETHANOL:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 337 - 352 mg/l
 Exposure time: 96 h
 Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 500 mg/l
 Exposure time: 48 h
 Test Type: static test
 Method: OECD Test Guideline 202

Toxicity to algae : NOEC (Desmodesmus subspicatus (green algae)): > 500 mg/l
 End point: Growth inhibition
 Exposure time: 72 h
 Test Type: static test

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 23 mg/l
 Exposure time: 34 d
 Test Type: flow-through test
 Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia (water flea)): 9.43 mg/l
 Exposure time: 21 d
 End point: Reproduction Test
 Test Type: semi-static test
 Method: OECD Test Guideline 211

Persistence and degradability**Components:**

2-PHENOXYETHANOL:

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Biodegradability : Result: Readily biodegradable.
 Biodegradation: 99 %
 Exposure time: 28 d
 Method: OECD Test Guideline 301F

No data available

Bioaccumulative potential**Components:**

2-PHENOXYETHANOL:

Partition coefficient: n-
 octanol/water : log Pow: 1.16

No data available

Mobility in soil**Components:**

No data available

Other adverse effects**Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life.

Components:

2-PHENOXYETHANOL:

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

: This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

General advice : The product should not be allowed to enter drains, water courses or the soil.
 Do not contaminate ponds, waterways or ditches with chemical or used container.
 Send to a licensed waste management company.
 Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.
 Dispose of as unused product.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.

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SECTION 14. TRANSPORT INFORMATION**International transport regulations****REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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MX_DG

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

TDG_INWT_C

Not dangerous goods

TDG_RAIL_C

Not dangerous goods

TDG_ROAD_C

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

CFR_RAIL_C

Not dangerous goods

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U.S. DOT - ROAD

Not dangerous goods

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant

no

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Acute Health Hazard

SARA 313

2-PHENOXYETHANOL 122-99-6 70.01 %

California Prop 65

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

The components of this product are reported in the following inventories:

TSCA : Preservative

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

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SECTION 16. OTHER INFORMATION**Further information**

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NFPA:	HMIS III:						
<p style="text-align: center;">Flammability</p> <p style="text-align: center;">Special hazard.</p>	<table border="1" style="width: 100%;"> <tbody> <tr> <td style="background-color: blue; color: white;">HEALTH</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="background-color: red; color: white;">FLAMMABILITY</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: yellow; color: black;">PHYSICAL HAZARD</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <p>0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	2	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	2						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements

H302 Harmful if swallowed.
 H319 Causes serious eye irritation.

Sources of key data used to compile the Safety Data Sheet

Ashland internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

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ACGIH : American Conference of Industrial Hygienists
 BEI : Biological Exposure Index
 CAS : Chemical Abstracts Service (Division of the American Chemical Society).
 CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
 FG : Food grade
 GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
 H-statement : Hazard Statement
 IATA : International Air Transport Association.
 IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization
 ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
 IMDG : International Maritime Code for Dangerous Goods
 ISO : International Organization for Standardization
 logPow : octanol-water partition coefficient
 LCxx : Lethal Concentration, for xx percent of test population
 LDxx : Lethal Dose, for xx percent of test population.
 ICxx : Inhibitory Concentration for xx of a substance
 Ecxx : Effective Concentration of xx
 N.O.S.: Not Otherwise Specified
 OECD : Organization for Economic Co-operation and Development
 OEL : Occupational Exposure Limit
 P-Statement : Precautionary Statement
 PBT : Persistent , Bioaccumulative and Toxic
 PPE : Personal Protective Equipment
 STEL : Short-term exposure limit
 STOT : Specific Target Organ Toxicity
 TLV : Threshold Limit Value
 TWA : Time-weighted average
 vPvB : Very Persistent and Very Bioaccumulative
 WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
 DOT : Department of Transportation
 FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
 HMIRC : Hazardous Materials Information Review Commission
 HMIS : Hazardous Materials Identification System
 NFPA : National Fire Protection Association
 NIOSH : National Institute for Occupational Safety and Health
 OSHA : Occupational Safety and Health Administration
 PMRA : Health Canada Pest Management Regulatory Agency
 RTK : Right to Know
 WHMIS : Workplace Hazardous Materials Information System