SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Name: LW-C5 Screen Wash
Product Code: 195-005
MSDS Date: November 20, 2013

Lawson Screen & Digital Products
5110 Penrose St.
St. Louis, MO 63115

General Information: 314-382-9300
CHEMTREC: 800-424-9300

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

GHS Classification:
Flammable liquids (Category 2)
Acute toxicity, Inhalation (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Reproductive toxicity (Category 2)
Specific target organ toxicity - single exposure (Category 2)
Specific target organ toxicity - single exposure (Category 3)
Aspiration hazard (Category 1)

GHS Labeling

Symbol:

Signal Word: Danger

Hazard Statements:
Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
Harmful if inhaled.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
May cause damage to organs.

Precautionary Statements:
Prevention:
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Use personal protective equipment as required.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Do NOT induce vomiting.

Potential Health Effects: See Section 11 for more information

This product does not contain carcinogens or potential carcinogens as listed by IARC, NTP, or ACGIH.

This material contains components that are considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Environmental Effects: See Section 12 for more information.

Section 3: COMPOSTION/INFORMATION ON INGREDIENTS

No.	Component CAS REG. NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TWA	STEL
1	**Toluene CAS #108-88-3**	**1-100**	**200 ppm**	Not Avail	**20 ppm**	Not Avail
2	**Xylene CAS #1330-20-7**	**1-30**	**100 ppm**	150 ppm	**100 ppm**	150 ppm
3	**Methyl Ethyl Ketone 78-93-3**	**1-30**	**200 ppm**	Not Available	**200 ppm**	Not Available
4	**Ethyl Alcohol CAS #64-17-5**	**1-30**	**1000 ppm**	Not Available	**1000 ppm**	Not Available
5	**Acetone CAS #67-64-1**	**1-30**	**1,000 ppm**	Not Avail	**500 ppm**	Not Avail

Section 4: FIRST AID MEASURES

Emergency first aid procedures by route of exposure:

Inhalation: If symptoms are experienced, remove source of contamination or move victim to fresh air. If affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

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

Skin: Wash off for 20 minutes. Remove contaminated clothing, and any extraneous chemical. Consult a physician.

Eyes: Immediately flush eyes with water for at least 20 minutes while holding eyelids open. Remove contact lenses. Get medical attention.

Section 5: FIRE FIGHTING MEASURES

Flash Point (toluene): Closed cup: 4°C (39°F). (Tagliabue (ASTM D-56))
Auto-ignition Temperature (toluene): 536°C (997°F)
Lower Explosion Limit (toluene): AP 1.2 %
Upper Explosion Limit (toluene): AP 7.1 %
Flammability Classification: Flammable Liquid Class IB

Suitable Extinguishing Media:
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Products of Combustion: Upon decomposition this product may emit carbon dioxide, carbon monoxide, and/or low molecular weight hydrocarbons.

Fire Fighting Equipment/Instructions:
Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for fire-fighting if necessary

HAZARD	HMIS	NFPA
Toxicity	2	2
Fire	4	4
Reactivity	0	0

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Protection: For large spills wear gloves, Tyvek suits, safety glasses, and appropriate NIOSH approved respiratory protection. Keep unnecessary personnel away. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.

Special Properties: Flammable Liquid! This material releases vapors at or below ambient temperatures. When mixed with air in certain proportions and exposed to an ignition source, its vapor can cause a flash fire. Use only with adequate ventilation. Vapors are heavier than air and may travel long distances along the ground to an ignition source and flash back. A vapor and air mixture can create an explosion hazard in confined spaces such as sewers. If container is not properly cooled, it can rupture in the heat of a fire.

Environmental Precautions: Prevent discharge to open bodies of water, municipal sewers, and watercourses.

Method for Containment: Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth. Control runoff and isolate discharged material for proper disposal. Approach release from upwind.

Methods for Clean-up: Ventilate area of leak or spill. Use spark-proof tools to sweep or scrape up and containerize in approved chemical waste container.

Section 7: HANDLING AND STORAGE

Handling:
Keep away from heat, sparks and flame. Use only with adequate ventilation.
To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Storage:
Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Keep away from oxidizers.

Section 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protective Equipment (PPE)

Respiratory Protection: Wear appropriate respirator when ventilation is inadequate.
Eye/Face Protection: Splash proof chemical goggles and face shield.
Hand Protection: Impervious gloves, the breakthrough time of the selected glove(s) must be greater than the intended use period.
Body: Avoid skin contact. If product comes in contact with clothing, immediately remove soaked clothing and shower. Wear long sleeve shirts and trousers without cuffs.

Other Protective Equipment:
Facilities storing or utilizing this material should be equipped with eyewash and safety shower facilities.

See section 3 for exposure limits.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance, State	Clear liquid
Color	Colorless
Odor	Not available
pH (1%soln/water)	Not Available
Vapor Density (toluene)	>3 (Air=1)
Boiling Range (toluene)	80 to 145°C (176 to 293°F)
Vapor Pressure (toluene)	AP 3.2 kPa (AP 24 mm Hg) (at 20°C)
Melting Point	Not Available
Freezing Point	Not Available
Flash Point (See Section 5)	
Flammability Properties (See section 5)	
Solubility (in water)	Very Slightly Soluble
Specific Gravity (toluene)	0.87 (Water = 1)
Evaporation Rate	Not Available
Octanol/Water partition coefficient (Kow)	Not Available
Auto-ignition temperature:	Not Available
Decomposition temperature:	Not Available

Section 10: STABILITY AND REACTIVITY

Stability: This material is considered stable at ambient temperatures 70ºC (21ºC).

Condition to Avoid: Flames, sparks, electrostatic discharge, heat and other ignition sources.

Incompatible Materials: This product reacts with strong acid, strong bases, and oxidizing agents.

Hazardous Decomposition: Upon decomposition, this product evolves carbon monoxide, carbon dioxide, and/or low weight hydrocarbons.

Hazardous Reactions: This product will not undergo polymerization.

Section 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:
Component Analysis LD50

Toluene (108-88-3)
48 Hr EC50 Daphnia magna: 5.46 - 9.83 mg/L [Static];
48 Hr EC50 Daphnia magna: 11.5 mg/L
Inhalation LC50 Rat 12.5 mg/L 4 h;
Inhalation LC50 Rat >26700 ppm 1 h;

Oral LD50 Rat 636 mg/kg;
Dermal LD50 Rabbit 8390 mg/kg;
Dermal LD50 Rat 12124 mg/kg

Acetone (67-64-1)
Oral LD50 Rat: 5800 mg/kg
LC50 Inhalation - rat - 8 h - 50,100 mg/m3
LD50 Dermal - guinea pig - 7,426 mg/kg
Skin - rabbit - Mild skin irritation - 24 h
Eyes - rabbit - Eye irritation - 24 h

Xylene (1330-20-7)
Inhalation LC50 Rat 5000 ppm 4 h;
Inhalation LC50 Rat 47635 mg/L 4 h;
Oral LD50 Rat 4300 mg/kg;
Dermal LD50 Rabbit >1700 mg/kg

Methyl Ethyl Ketone (78-93-3)
Oral LD50 2737 mg/kg
Inhalation rat LC50 23,500 mg/m3/8-hr
Skin rabbit LD50 6480 mg/kg

Ethyl Alcohol (64-17-5)
Oral LD50 Rat: 7060 mg/kg

CHRONIC EFFECTS:
Component

Toluene (108-88-3)
Carcinogenic Effects: A4 - Not classifiable for human or animal by ACGIH.
Mutagenic Effects: Not Available.
Teratogenic Effects: Not Available
Developmental Toxicity: Reproductive effects in experimental animals and in long term chemical abuse situations.
Target Organs: **Inhalation** May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness. **Skin** May be harmful if absorbed through skin. Causes skin irritation. **Eyes** Causes eye irritation. **Ingestion** May be harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.
Acetone (67-64-1)
Carcinogenicity: ACGIH A4 – Not Classifiable as a Human Carcinogen
Neurotoxicity: This product contains Acetone, a central nervous system target.
Mutagenicity: No information available for product.
Reproductive: No information available for product.
Developmental: No information available for product.
Target Organs: Acetone can target the respiratory system, eyes, CNS, kidneys, hematology. **Inhalation** May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness **Skin** May be harmful if absorbed through skin. Causes skin irritation. **Eyes** Causes eye irritation. **Ingestion** May be harmful if swallowed.

Xylene (1330-20-7)
Carcinogenic Effects: A4 - Not classifiable for human or animal by ACGIH, IARC, or OSHA.
Mutagenic Effects: Xylenes have not demonstrated genotoxic activity in animals or humans and do not appear to be immunotoxic.
Teratogenic Effects: Not Available
Developmental Toxicity: Not Available
Target Organs: Nervous system, respiratory system. From the animal and human toxicology data, xylenes can be characterized as neurotoxic chemicals at moderate to high doses inducing symptoms in humans of dizziness, headache, nausea, and neuromuscular effects, speech impairment, and amnesia at high doses.

Aspiration into the lungs of even a small amount may cause severe injury, since its low viscosity and surface tension will cause it to spread over a large surface of pulmonary tissue. Aspiration into the lungs of even a small amount may cause severe injury, since its low viscosity and surface tension will cause it to spread over a large surface of pulmonary tissue. **Eyes**: lrritation from vapors. Splash accidents have produced transient, superficial injury to the eye. **Skin**: May cause skin irritation. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatltis. **Inhalation** Central nervous system depression, narcosis, respiratory tract irritation & pumonary edema. Severe exposure may cause death. **Ingestion** Aspiration hazard if swallowed. Can enter lungs and cause damage. May be fatal if swallowed. Central nervous system depression, a burning sensation in the oropharynx and stomach. Vomiting. **Potential Chronic Health Effects** Effects of chronic exposure to xylene are similar to those of acute exposure, particularly central nervous system effects (based on animal studies). **Overexposure/Signs/Symptoms**: Headache, tremors, apprehension, memory loss, weakness, dizziness, loss of appetite, nausea, ringing in the ears, irritability, thirst, anemia, mucosal bleeding, enlarged liver, and hyperplasia are reported when chronic inhalation of xylenes has occured. Repeated contact with the skin can cause defatting dermatitis. Reversible eye damage, including vacuoles in the cornea and conjuntiva, has occured with chronic xylene exposure.

Methyl Ethyl Ketone (78-93-3)
Carcinogenicity: No information available
Neurotoxicity: No information available
Mutagenicity: No information available
Reproductive: Has shown teratogenic effects in laboratory animals.
Developmental: No information available
Target Organs: Prolonged exposure may cause central nervous system effects.
Inhalation May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Ingestion May be harmful if swallowed.

Ethyl Alcohol (64-17-5)
Carcinogenic Effects: A4 - Not classifiable for human or animal by ACGIH.
Mutagenic Effects: Not Available.
Teratogenic Effects: Not Available.
Developmental Toxicity: Ethyl alcohol is a developmental toxin when consumed during pregnancy
Target Organs: When consumed, ethyl alcohol can target the respiratory system, skin, eyes, CNS, liver, blood, and reproductive system. **Inhalation**: May cause irritation to the mucous membranes of the upper respiratory tract. Exposure over 1000 ppm may cause headache, drowsiness, lassitude, loss of appetite, inability to concentrate, throat irritation **Ingestion**: Can cause depression of Central Nervous System, nausea, vomiting, diarrhea, intoxication, and in acute cases, death **Eye**: Liquid and vapor may cause irritation. Splashes may cause temporary pain and blurred vision **Skin**: May cause irritation, cracking, flaking, and defatting of skin on prolonged contact **Chronic Exposure**: Prolonged skin contact causes drying and cracking of skin. May affect nervous system, liver, blood, reproductive system. **Signs and Symptoms:** Headache, drowsiness, lassitude, loss of appetite, inability to concentrate, irritation of throat/eye/skin, depression of central nervous system, nausea, vomiting, diarrhea, skin defatting.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Toluene (108-88-3)
96 Hr EC50 Pseudokirchneriella subcapitata: >433 mg/L;
72 Hr EC50 Pseudokirchneriella subcapitata:12.5 mg/L [static] mg/L [flow-through] (1 day old);
96 Hr LC50 Pimephales promelas: 12.6 mg/L [static];
96 Hr LC50 Oncorhynchus mykiss: 5.89-7.81 mg/L [flowthrough];
96 Hr LC50 Oncorhynchus mykiss: 14.1- 17.16 mg/L [static];
96 Hr LC50 Oncorhynchus mykiss: 5.8 mg/L [semi-static];
96 Hr LC50 Lepomis macrochirus: 11.0-15.0 mg/L [static];
96 Hr LC50 Oryzias latipes: 54 mg/L [static];

96 Hr LC50 Poecilia reticulata: 28.2 mg/L [semi-static];
96 Hr LC50 Poecilia reticulata: 50.87-70.34 mg/L [static]
48 Hr EC50 Daphnia magna: 5.46 - 9.83 mg/L [Static];
48 Hr EC50 Daphnia magna: 11.5 mg/L

Ecotoxicity: Acetone (67-64-1)
96 hour LC50 Oncorhynchus mykiss: 5540 mg/L (static)
96 hour LC50 Pimephales promelas 6210 mg/L [flow through]
96 hour LC50 Lepomis macrochirus: 8300 mg/L [static]
15 min EC50 Photobacterium phosphoreum: 14,500 mg/L
48 Hr EC50 water flea: 0.0039 mg/L
48 hour EC50 water flea: 12,700 mg/L [static]
48 hour EC50 Daphnia magna: 12,600 mg/L

Ecotoxicity: Xylene (1330-20-7)
96 Hr LC50 Pimephales promelas: 13.4 mg/L [flow-through];
96 Hr LC50 Oncorhynchus mykiss: 2.661-4.093 mg/L [static];
96 Hr LC50 Oncorhynchus mykiss: 13.5-17.3 mg/L;
96 Hr LC50 Lepomis macrochirus: 13.1-16.5 mg/L [flow -through];
96 Hr LC50 Lepomis macrochirus: 19mg/L;
96 Hr LC50 Lepomis macrochirus: 7.711- 9.591 mg/L [static];
96 Hr LC50 Pimephales promelas: 23.53-29.97 mg/L [static];
96 Hr LC50 Cyprinus carpio: 780 mg/L [semi-static];
96 Hr LC50 Cyprinus carpio: >780 mg/L;
96 Hr LC50 Poecilia reticulata: 30.26-40.75 mg/L [static]
48 Hr EC50 water flea: 3.82 mg/L;
48 Hr LC50 Gammarus lacustris: 0.6 mg/L
48 Hr EC50 water flea: 3.82 mg/L;
48 Hr LC50 Gammarus lacustris: 0.6 mg/L

Ecotoxicity: Methyl Ethyl Ketone (78-93-3)
Fish LC50/960hour > 100 mg/l

Ecotoxicity: Ethyl Alcohol (64-17-5)
96 hour LC50 Oncorhynchus mykiss: 12,900 mg/L (flow-through) (30days old)
96 hour LC50 Pimephales promelas 14.2 mg/L
5 min EC50 Photobacterium phosphoreum: 35,470 mg/L
30 min EC50 Photobacterium phosphoreum: 34,634 mg/L
48 hour EC50 Daphnia magna: 9,268 mg/L
24 hour EC50 Daphnia magna: 10,800 mg/L

Section 13: DISPOSAL CONSIDERATIONS

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

Section 14: TRANSPORT INFORMATION

Proper Shipping Name: Flammable liquids, n.o.s.
Hazard Class: 3
Identification No.: UN1993
Packing Group: II
Label: Flammable

Section 15: REGULATORY INFORMATION

TSCA Inventory This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

SARA 302/304 The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

SARA 313: Toluene (CAS #108-88-3), Xylene (CAS #1330-20-7)

CERCLA The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are: Toluene [CAS No.: 108-88-3] RQ = 1000 lbs. (453.6 kg), Acetone [CAS No. 67-64-1] RQ = 5,000. Xylene [CAS No.: 1330-20-7] RQ = 100 lbs (45.3 kg), Methyl ethyl ketone [CAS No. 78-93-3] RQ = 5,000 lbs

SARA 311/312 Hazard The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard, Fire Hazard

Additional Regulatory Remarks

Federal Hazardous Substances Act, related statutes, and Consumer Product Safety Commission regulations, as defined by 16 CFR 1500.14(b)(3) and 1500.83(a)(13): This product contains Toluene which may require special labeling if distributed in a manner intended or packaged in a form suitable for use in the household or by children. Precautionary label dialogue should display the following: **DANGER: Contains Toluene! Harmful or fatal if swallowed! Call Physician Immediately. Vapor Harmful! KEEP OUT OF REACH OF CHILDREN!**

Section 16: OTHER SUPPLEMENTAL INFORMATION

Prepared for Lawson Screen & Digital Products on 11/20/13

Disclaimer:

The information and recommendations contained in the Safety Data Sheet (SDS) are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. The information and recommendations set forth herein are presented in good faith and believed to be correct as of this date hereof.

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