



SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Name: VF 184 Screenwash

Product Code: B5480

MSDS Date: September 23, 2014

Chemisphere Corporation

2101 Clifton Ave

St. Louis, MO 63139

General Information: 314-644-1300

CHEMTREC: 800-424-9300

Section 2: HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW****GHS Classification:**

Flammable liquids (Category 2)

Acute toxicity, Inhalation (Category 4)

Acute toxicity, Dermal (Category 4)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Specific target organ toxicity - single exposure (Category 3), Central nervous system

GHS Labeling

Symbol:

Signal Word: Danger

Hazard Statements:

Highly flammable liquid and vapor

Toxic if inhaled.

Harmful in contact with skin.

Causes skin irritation.

Causes serious eye irritation

May cause drowsiness or dizziness

Precautionary Statements:***Prevention:***

Avoid breathing mist/vapors/spray.

Ground/bond container and receiving equipment.

Keep away from heat/sparks/open flames/hot surfaces-no smoking.

Keep container tightly closed.

Take precautionary measure against static discharge.

Use only non-sparking tools.

Use only outdoors or in a well-ventilated area.

Wash thoroughly after handling.

Wear eye protection/face protection.

Wear protective gloves.

Wear protective gloves/eye protection/face protection.

Response:

Call a poison center/doctor if you feel unwell.

If eye irritation persists: Get medical advice/attention.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water shower.

If on skin: wash with plenty of water.

If skin irritation occurs: Get medical advice/attention.

In case of fire: Use carbon dioxide, dry chemical powder, dry sand, limestone powder, or alcohol resistant foam to extinguish.

Take off contaminated clothing and wash it before reuse.

Storage:

Store in a well-ventilated place. Keep cool.

Keep container tightly closed. Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Potential Health Effects: See Section 11 for more information

This product contains 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: COMPOSITION/INFORMATION ON INGREDIENTS

No.	Component CAS REG. NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TWA	STEL
1	Xylene CAS #1330-20-7	1-100	100 ppm	150 ppm	100 ppm	150 ppm
2	Acetone CAS #67-64-1	1-100	1,000 ppm	Not Avail	500 ppm	Not Avail
3	Ethylbenzene CAS #100-41-4	1-20	100 ppm	125 ppm	100 ppm	125 ppm

Section 4: FIRST AID MEASURES

Emergency first aid procedures by route of exposure:

Inhalation: Move to fresh air in case of accidental inhalation of vapors from overheating or combustion. If symptoms persist, call a physician.

Ingestion: Call a physician or Poison Control Centre immediately. Do not induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.

Skin: Wash off with soap and plenty of water. Remove contaminated clothing, and any extraneous chemical. Get medical attention if irritation persists.

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

Section 5: FIRE FIGHTING MEASURES

Flash Point (acetone):	-17°C (1.4°F)
Auto-ignition Temperature (acetone):	465°C (869°F)
Upper Explosion Limit (acetone):	12.8%
Lower Explosion Limit (acetone):	2.5%
Flammability Classification (acetone):	Flammable Liquid IB

Suitable Extinguishing Media:

Use methods appropriate for the surrounding fire. Consider carbon dioxide, water spray mist or foam, dry chemical.

Products of Combustion:

Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, and hydrocarbon fragments.

Fire Fighting Equipment/Instructions:

A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for fire-fighting if necessary. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.

Specific Hazards:

Take precautionary measures against static discharges. Explosive vapor could form. Highly flammable. Vapors are toxic when inhaled.

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 acids and 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	Clear
Odor	Acetone, Strong
pH (1%soln/water)	Not available
Vapor Density (acetone)	2.0 (air = 1)
Boiling Point (acetone)	56.05°C at 1013.25 hPa
Vapor Pressure (acetone)	233 hPa at 20°C
Melting Point/freezing point (acetone)	-94.7°C
Flash Point (See Section 5)	
Flammability Properties (See section 5)	
Solubility (in water)	Soluble
Specific Gravity (acetone)	0.7854
Evaporation Rate (acetone)	5-6 (butyl acetate = 1)
Octanol/Water partition coefficient (Kow) (acetone):	-0.24
Auto-ignition temperature (acetone):	465C
Decomposition temperature (acetone):	Not available
Viscosity:	Not available

Section 10: STABILITY AND REACTIVITY

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

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

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

Ethyl Benzene (100-41-4)
LD50 Dermal – rabbit – 15,433 mg/kg

CHRONIC EFFECTS:

Component

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: Prolonged skin contact may defat the skin and produce dermatitis in a study of pregnant rats and mice exposed to acetone vapor during 6-19 of gestation, slight developmental toxicity was observed. Reports of other reproductive effects of acetone include observations of testicular effects and changes of sperm quality in rats.

Developmental: No information available for product.

Target Organs: Acetone can target the respiratory system, eyes, CNS, kidneys, hematology. Narcosis; CNS depression; eye, nose throat, and skin irritation. Harmful if swallowed or inhaled. Can cause CNS depression, drowsiness, narcosis, or asphyxiation. **Skin Contact:** Repeated exposure may cause skin dryness or cracking in human volunteers, topical application of acetone for 30 to 90 minutes produced considerable skin damage with high degree restoration after 72 hours. **Eye contact:** Can cause severe eye irritation. **Inhalation:** Health effects reported in humans caused by inhalation include increase in visual reaction time and decrease in dual response task at 250 ppm; mucous membrane irritation, heavy eyes, headache, and general weakness accompanied by blood changes at 500 ppm; chronic inflammation of airways, stomach and duodenum at 1000 ppm; and severe toxic effects at 4000 ppm. Acetone is readily absorbed into blood stream. **Ingestion:** Symptoms of ingestion include nausea, vomiting, gastric hemorrhage, sedation, respiratory depression, ataxia, and paresthesia.

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:** Irritation 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 dermatitis. **Inhalation** Central nervous system depression, narcosis, respiratory tract irritation & pulmonary 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 occurred. Repeated contact with the skin can cause defatting dermatitis. Reversible eye damage, including vacuoles in the cornea and conjunctiva, has occurred with chronic xylene exposure.

Ethyl Benzene (100-41-4)

Carcinogenic Effects: IARC: 2B - Group 2B: Possibly carcinogenic to humans (Ethylbenzene)

Mutagenic Effects: Not Available

Teratogenic Effects: Not Available

Developmental Toxicity: Not Available

Target Organs: Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Section 12: ECOLOGICAL INFORMATION

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: Ethyl Benzene (100-41-4)

LC50 - *Cyprinodon variegatus* (sheepshead minnow) - 88.00 mg/l - 96 h

LC50 - *Lepomis macrochirus* (Bluegill) - 80.00 mg/l - 96 h

NOEC - *Cyprinodon variegatus* (sheepshead minnow) - 88 mg/l - 96 h

LC50 - Oncorhynchus mykiss (rainbow trout) - 4.2 mg/l - 96 h
EC50 - Daphnia magna (Water flea) - 2.90 mg/l - 48 h

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. (contains Acetone, Xylene)

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: Xylene (CAS #1330-20-7), Ethylbenzene (CAS #100-41-4)

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: Acetone [CAS No. 67-64-1] RQ = 5,000lbs, Xylene [CAS No.: 1330-20-7] RQ = 100 lbs (45.3 kg), Ethylbenzene [CAS No. 100-41-4] RQ = 1,000 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

California Prop 65: Ethylbenzene cancer hazard

Section 16: OTHER SUPPLEMENTAL INFORMATION

Prepared by: Chemisphere Corp. on 9/23/14

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