



SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Name: CS Ink Wash
Product Code: B8820
MSDS Date: September 23, 2014

Chemisphere Corporation
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St. Louis, MO 63139

General Information: 314-644-1300
CHEMTREC: 800-424-9300

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

GHS Classification:

Flammable liquids (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)

GHS Labeling



Symbol:

Signal Word: Warning

Hazard Statements:

Combustible liquid
Causes skin irritation.
Causes serious eye irritation

Precautionary Statements:

Prevention:

Keep away from flames and hot surfaces-no smoking.
Wash thoroughly after handling.
Wear protective gloves/eye protection/face protection

Response:

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 on skin: Wash with plenty of water.
If skin irritation occurs: Get medical advice/attention.
In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
Take off contaminated clothing and wash it before reuse.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

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

Potential Health Effects: See Section 11 for more information.

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

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	Dimethyl Succinate CAS #106-65-0	1-50	Not avail	Not avail	Not avail	Not avail
2	Dimethyl Adipate CAS #627-93-0	1-50	Not avail	Not avail	Not avail	Not avail
3	Diethylene glycol monobutyl ether acetate CAS #124-17-4	1-50	Not avail	Not avail	Not avail	Not avail
4	Dipropylene Glycol Methyl Ether Acetate CAS #88917-22-0	1-50	Not Avail	Not Avail	Not Avail	Not Avail
5	Nonylphenol Ethoxylate CAS #9016-45-9	1-50	Not avail	Not avail	Not avail	Not avail
6	t-Octylphenoxy polyethoxyethanol CAS #9002-93-1	1-50	Not avail	Not avail	Not avail	Not avail

Section 4: FIRST AID MEASURES

Emergency first aid procedures by route of exposure:

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. Consult a physician.

In case of eye contact

Flush eyes with water. Consult a physician.

If swallowed

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

Section 5: FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

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

Special hazards arising from the substance or mixture

Carbon oxides

Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

Further information

Use water spray to cool unopened containers.

HAZARD	HMIS	NFPA
Toxicity	2	2
Fire	1	1
Reactivity	0	0

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

For personal protection see section 8.

Environmental precautions

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

Methods and materials 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). Keep in suitable, closed containers for disposal.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Avoid inhalation of vapor or mist.

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

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Specific end use(s)

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

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

Eye/face protection

Safety glasses with side-shields conforming to EN166 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: 30 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

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

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (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).

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 Form: liquid

Color: colorless

Odor: no data available

Odor Threshold: no data available

pH: no data available

Melting point/freezing point Melting point/range (Dimethyl Succinate): 16 - 19 °C (61 - 66 °F) - lit.

Initial boiling point and boiling range (Dimethyl Succinate): 200 °C (392 °F) - lit.

Flash point (Dimethyl Succinate): 90 °C (194 °F) - closed cup

Evaporation rate: no data available

Flammability (solid, gas): no data available

Upper/lower flammability or explosive limits (Dimethyl Succinate):

Upper explosion limit: 8.5 %(V)

Lower explosion limit: 1 %(V)

Vapor pressure (Dimethyl Succinate): 0.4 hPa (0.3 mmHg) at 20 °C (68 °F)

Vapor density: no data available

Relative density (Dimethyl Succinate): 1.117 g/mL at 25 °C (77 °F)

Water solubility (Dimethyl Succinate): 122.9 g/l at 20 °C (68 °F) - OECD Test Guideline 105

Partition coefficient (Dimethyl Succinate): noctanol/water log Pow: 0.33 at 40 °C (104 °F)

Auto-ignition temperature (Dimethyl Succinate): 470 °C (878 °F) at 980 hPa (735 mmHg)

Decomposition temperature: no data available

Viscosity: no data available

Explosive properties: no data available

Oxidizing properties: no data available

Section 10: STABILITY AND REACTIVITY

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

Conditions to Avoid: Heat, flames and sparks.

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:

Analysis LD50

Dimethyl Succinate (106-65-0)

Oral LD50 Rat:>5g/kg

Dermal LD50 Rat: 1920 mg/kg

Slightly toxic following oral administration. Practically nontoxic after skin application in animal studies.

Moderately irritating to eyes (rabbit). Practically non irritating to skin (rabbit).

Dimethyl Adipate (627-93-0)

Oral LD50 Rat: 1920 mg/kg

Practically nontoxic following oral administration. Practically nontoxic after skin application in animal studies.

Practically non irritating to skin (rabbit). Moderately irritating to eyes (rabbit).

Dimethyl Glutarate (1119-40-0)

Inhalation LC50 Rat: 6.1 mg/L/4H

Oral LD50 Rat: 8191 mg/kg

Nonylphenol Ethoxylate (9016-45-9)

Oral: LD50 Rat = 3310 mg/kg

Inhalation: Believed to be practically non-toxic.

Dermal: LD50 Rabbit > 2000 mg/kg

Diethylene glycol monobutyl ether acetate (CAS # 124-17-4)

LD50 Oral - rat - 6,500 mg/kg

LC50 Inhalation - rat - 4 h - 72,500 mg/m³

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Lungs, Thorax, or Respiration:Dyspnea. Lungs, Thorax, or Respiration:Other changes.

LD50 Dermal - rabbit - 14,500 mg/kg

CHRONIC EFFECTS:

Di-propylene glycol methyl ether acetate, mixture of isomers (889717-22-0)

Carcinogenic Effects: Not classified as a carcinogen according to IARC, NTP, ACGIH, and OSHA.

Mutagenic Effects: Not Available

Teratogenic Effects: Not Available

Developmental Toxicity: Not Available

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

Ingestion May be harmful if swallowed.

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

Eyes May cause eye irritation.

Dimethyl Succinate (106-65-0) Dimethyl Adipate (627-93-0)

Carcinogenicity: Not Available

Neurotoxicity: Not available

Mutagenicity: no genetic effects were observed in standard tests using bacterial cells and whole animals.

Reproductive: Minor changes in male fertility parameters, i.e. hormone measurements, sperm number or reproductive organ weights, observed in the absence of a change in reproductive performance.

Developmental: rate inhalation no effects on offspring observed in laboratory animals in the presence of maternal toxicity.

Target Organs: Causes eye irritation. May cause skin irritation. May cause respiratory tract irritation. May cause blurred vision. Mild skin and moderate eye irritation during primary irritation studies in rabbits.

Diethylene glycol monobutyl ether acetate (CAS # 124-17-4)

Carcinogenic Effects: Not identified as probable, possible or confirmed human carcinogen by IARC. Not identified as a carcinogen or potential carcinogen by ACGIH or OSHA. Not identified as a known or anticipated carcinogen by NTP.

Mutagenic Effects: Not Available.

Teratogenic Effects: Not Available

Developmental Toxicity: Not Available

Reproductive Effects: Not Available

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

Ingestion May be harmful if swallowed.

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

Eyes May cause eye irritation.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Dimethyl Glutarate, Dimethyl Succinate, and Dimethyl Adipate

EC50/48-hour/Daphnia=17 mg/l

EC50/72-hour/Algae=46.9 mg/l

LC50/96-hour/bluegill sunfish = 7.5 mg/l

Ecotoxicity: Diethylene glycol monobutyl ether acetate (CAS # 124-17-4)

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 77 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 665 mg/l - 48 h

Section 13: DISPOSAL CONSIDERATIONS

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

Section 14: TRANSPORTATION INFORMATION

This material is not regulated as a hazardous material for transportation.

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 No components were identified.

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: No components were identified.

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: Acute (Immediate) Health Hazard, Chronic (Delayed) Health Hazard

California Prop 65: No components were identified.

Section 16: OTHER SUPPLEMENTAL INFORMATION

Prepared by: Chemisphere Corp. on 9/23/2014

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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