QUALICE LLC
QUALITY CPAR SERVICE

SAFETY DATA SHEET

CPAR W-45

1. IDENTIFICATION

Product Name: CPAR W-45 SDS No.: 569-NA-QLC
47% chlorine (Cl) by weight

Other Means of Identification: Very Long-Chain Chlorinated Paraffin (vLCCP), LCCP, W-45

CAS Number:

1417900-96-9	Alkanes, C_{21-34} –branched and linear, chloro	USA
63449-39-8	Paraffin waxes and Hydrocarbon waxes, chloro	Canada, Mexico

Recommended Use: Industrial Use Only

Restrictions on Use: One or more components in this material are approved for specific commercial use(s) under a U.S. EPA TSCA Significant New Use Rule or Consent Order. Approved uses include: Flame retardant and plasticizer in polymers. Flame retardant, plasticizer and lubricant in adhesives, caulks, sealants, and coatings. Additive in lubricants including metalworking fluids. Flame retardant and plasticizer in rubber. Flame retardant and waterproofer in textiles.

Uses Advised Against: No other use is permitted but what is listed in Restrictions on Use.

Supplier Information:
Qualice, LLC
PO Box 1169
11 EV Hogan Drive, Hamlet, NC, 28345, USA
(910) 419-6589

Emergency Contact: **(For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident)**

CHEMTREC (U.S. and Canada) 1-800-424-9300
CHEMTREC (Outside the U.S.) 1-703-527-0585
Mexico (dial from in-country): 01-800-681-9531

2. HAZARDS IDENTIFICATION

GHS Classification	These products do not have health or physical hazards that meet the classification criteria under the OSHA Hazard Communication GHS scheme. These products do not have health, physical, or environmental hazards that meet the classification criteria under the United Nations (UN) GHS scheme. However, these products may have potential to persist in the aquatic environment, therefore the Hazard Statement and Precautionary Statements proscribed by the UN GHS for classification under Category 4 of Hazardous to the Aquatic Environment – Long-Term Hazard, are included below.
Signal Word	None
GHS Hazard Statement	• H413 – May cause long lasting harmful effects to aquatic life.
GHS Precautionary Statements	• P273 – Avoid release to the environment. • P501 – Dispose of contents/container in accordance with government regulations and in accordance with manufacturer instructions in Section 13 of this SDS.

Hazards Not Otherwise Classified: None
Physical Hazards Not Otherwise Classified: None
Health Hazards Not Otherwise Classified: None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	Synonyms	CAS Number	% by Weight
Alkanes, C_{21-34} – branched and linear, chloro	Very Long-Chain Chlorinated Paraffin, vLCCP	1417900-96-9 (USA) 63449-39-8 (Canada, Mexico)	99.0
Epoxidized Soybean Oil (Stabilizer)*		8013-07-8	1.0

* The stabilizer does not contribute to the hazard classification of this product.

4. FIRST AID MEASURES

Inhalation	Move to fresh air. Get medical attention, if needed.
Eye Contact	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. If irritation persists get medical attention.
Skin Contact	Wash with soap and water. Get medical attention if irritation develops or persists.
Ingestion	Have victim rinse mouth thoroughly with water. Do not induce vomiting without medical advice. If ingestion of a large amount does occur, seek medical attention.
Most Important Symptoms/Effects, Acute and Delayed	Repeated or prolonged exposure may cause slight irritation of eyes and skin of susceptible persons. Inhalation of vapors in high concentration may cause irritation of the respiratory system.
Indication of Immediate Medical Attention or Special Treatment	These products do not have health hazards that require special first aid measures. If you feel unwell, seek medical advice (show the label or SDS where possible).
Notes to Physician	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Water Fog. Dry Chemical, Foam
Unsuitable Extinguishing Media	Water. High volume water jet. If use water jet as an extinguisher, this will spread the fire.
Specific Hazards Arising From the Chemical	Irritating and toxic gases or fumes may be released during a fire. Containers may explode when heated. May burn, but does not ignite readily.
Hazardous Combustion Products	Hydrogen chloride, carbon oxides, phosgene, chlorine Irritating and toxic gases or fumes may be released during a fire (hydrogen chloride).
Protective Equipment and Precautions for Firefighters	In event of fire, wear self-contained pressure-demand breathing apparatus with full protective gear.
Fire Fighting Equipment/Instructions	Use water spray to cool unopened containers. Move containers from fire area, if you can do so without risk. As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH approved or equivalent, and full protective gear. Move containers from fire area if you can do so without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Keep unnecessary personnel away. Ensure adequate ventilation. Use personal protective equipment. Avoid touching spilled materials.

Methods for Containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Prevent this material from contaminating soil or from entering sewage and drainage systems that lead to waterways.
Methods for Cleaning Up Spills	Wear appropriate protective equipment and clothing during clean-up. Should not be released into the environment.
Large Spills	Stop the flow of material, if safe to do so. Dike the spilled material, if possible. Dike far ahead of liquid spill for later disposal. Cover with plastic sheet to prevent spreading. Prevent product from entering drains. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Following product recovery, use oil absorbent to collect any residual material.
Small Spills	Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Do not contaminate water.
Other Information	Never return spills in original containers for re-use. For waste disposal, see Section 13.

7. HANDLING AND STORAGE

Precautions for Safe Handling	DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Avoid prolonged or repeated skin contact with this material. Wash hands after handling and before eating. Avoid breathing vapors or mists of this product. Wear personal protective equipment. Avoid release to the environment. Handle and open container with care.
Conditions for Safe Storage, including incompatibilities	Keep away from heat, sparks, and flame. Store in a cool dry place. Keep container closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines: Exposure Limits for this product have not been established. Avoid repeated or prolonged exposure to vapor or mist without appropriate respiratory protection.

Engineering Controls: Under normal conditions of use, natural ventilation should effectively remove and prevent buildup of any vapor/mist/fume/dust generated from the handling of this product.

Personal Protective Equipment:

Eye / Face Protection	If splashes are likely to occur, wear safety glasses with side-shields or a face shield with safety glasses that meet the American National Standard Practice for Occupational and Educational Eye and Face Protection (ANSI Z-87.1)". In Canada, the Canadian Standards Association (CSA) Z94.3-M1982 "Industrial Eye and Face Protectors".
Skin Protection	Normal work clothing (long sleeved shirts and long pants) is recommended. If splashes are likely to occur, use apron or impervious suit, such as a Tyvek coverall. If liquid contact is likely to occur, manufacturer recommends nitrile gloves (ex: N-DEX Nitrile).
Respiratory Protection	No personal respiratory protective equipment normally required. If vapor or mist is generated (heating, spraying) and engineering controls are not sufficient, wear a NIOSH-certified organic vapor respirator with particulate filter for oil mist (R or P) in the USA. In Canada, select respirator in accordance with Canadian Standards Association (CSA) Z94.4-93, "Selection, Use and Care of Respirators".
Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.

Protective Measures: There are no additional protective measures during repair and maintenance of contaminated equipment.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Clear, yellow to dark yellow
Physical State:	Liquid
Odor:	Slight
Odor Threshold:	Not available
pH:	Not applicable
Melting / Freezing Point:	Does not freeze
Boiling Point:	> 400 °C
Boiling Point Range:	Not available
Flash Point:	> 450 °F (232 °C) Cleveland Open Cup
Evaporation Rate:	Not available
Flammability:	Will decompose if involved in fire conditions
Flammability limits in Air, Lower and Upper % by Volume:	Not available
Auto-Ignition Temperature:	Not available
Vapor Pressure:	Very low. Not available for these products, but representative value provided: $C_{>20}$ with 42% Cl or 48% Cl = -2.5×10^{-5} Pa @ 25 °C (9.375771e-7 torr)
Vapor Density:	Not available
Volatility (% Loss, 25 hours):	0.8 @ 100 °C
Relative Density (Specific Gravity):	1.21 (25 °C)
Density (g/cm^3 @ 25 °C):	1.214
Bulk Density (lbs/gal):	10.1
Solubility (in water):	Very low. <0.000005 g/l @ 20 °C
Partition Coefficient: n-octanol/water:	See Section 12
Decomposition Temperature:	Not available
Viscosity, SUS @ 210 °F:	270
Viscosity, Poise @ 77 °F:	Not available
Stability:	Not available
Saturated Vapor Concentration:	Not available
Molecular Formula:	$C_nH_{2n+2-y}Cl_y$ n = 21-34
Molecular Structure:	$CH_3(CH_2CHCl)_7CH_2CH_2CH_2CH_2CH_2CH_3$ (representative)
Flash Point Class:	Class IIIB Combustible (NFPA)
Oxidizing Properties:	None

10. STABILITY & REACTIVITY

Reactivity	Not reactive.
Chemical Stability	Stable at normal conditions.
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	High temperatures.
Incompatible Materials	Strong oxidizing agents, reducing agents.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors - carbon oxides, hydrogen chloride, phosgene, and chlorine.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure	Skin contact, eye contact, inhalation, ingestion (skin is predominant route of exposure in workplace).
Signs and Symptoms of Exposure	Repeated or prolonged exposure may cause irritation of eyes and skin in sensitive persons. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Acute or Delayed Effects:

Eyes	Contact with eyes may cause slight irritation.
Skin	Prolonged and/or repeated skin contact may result in mild irritation or redness.
Inhalation	May cause slight irritation of respiratory tract. Avoid breathing vapors or mists of this product.
Ingestion	Small amounts (a tablespoonful) swallowed during normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

Chronic Effects From Short and Long Term Exposure:

Specific Target Organ Toxicity	• No data available for repeated skin exposure. • Liver (inflammatory/necrotic) is predominant target in animal studies. • Kidney, lymphatic system also identified as possible targets.
Respiratory or Skin Sensitization	• Available data is inconclusive.
Mutagenicity (germ cell)	• No data available for these products, but it is predicted that vLCCPs are not mutagenic.
Reproductive Effects	• No effects on fertility is expected. • Slight increase in implantation loss at 5,000 mg/kg/day, rabbit for C22–26, 43% Cl
Endocrine Disruption	• No data available.

Toxicology Studies:

Acute Toxicity	Low acute toxicity has been observed for inhalation or dermal routes. Oral studies on representative products are listed below:
LOAEL, Rat, oral, 90 day	100 mg/kg/day, for repeated dose toxicity (liver) for LCCP, 43% Cl
NOAEL, Rat, oral, 14 day	3,000 mg/kg/day, for repeated dose toxicity (liver)
NOAEL, Mouse, oral, 2 year	5,000 mg/kg/day

Carcinogenicity:

The components in this product are not listed by or considered to be a carcinogen by IARC, NTP, OSHA, or ACGIH.
An increased incidence of malignant lymphoma in male mice was reported at the highest dose tested (5,000 mg/kg/day) for C_{23} avg, 43% Cl

12. ECOLOGICAL INFORMATION

There is no specific ecological information for these vLCCP products. Information provided below is representative of the carbon chain range and percent of chlorination in the product.

Ecotoxicity	Ecologically significant impacts may have potential to occur if released to water and sediment. Although there is no established acute aquatic toxicity for this product, they may cause long lasting harmful effects to aquatic life due to studies that they do not readily biodegrade and may therefore persist in the environment.
Aquatic Toxicity	• C22-26, 42% wt. Cl, 96h LC50 >5,000 mg/l, Bleak fish species, No effects seen at solubility. • C18-26, 49% wt. Cl, 91-day LC0 >3,400 mg/kg, Bleak, No effects seen at solubility. • C>20, 48–54% wt. C,l 96h LC50 >300 mg/l, Bluegill Sunfish, No effects seen at solubility. • C20-30, 42% wt. Cl, 96h LC50 >770 mg/l Rainbow Trout, No effects seen at solubility. • C>20, 43% wt. Cl, No adverse effects seen over 48 hours, daphnia magna (does not meet Marine toxicity criteria)
Terrestrial Toxicity	No data available.
Persistence and Degradability (Environmental Fate)	• Unlikely to be readily or inherently biodegradable. Assumed to be potentially persistent, as a result. • No data available on degradation in soil or fate in atmosphere. • Atmospheric half-life is estimated 20 to 25 hours.
Bioaccumulative Potential	Not considered to be bioaccumulative.
Mobility in Soil	No data available.
Other Adverse Effects	Ozone Depletion Potential: Not determined Endocrine Disrupting Potential: Not determined Global Warming Potential: No
Partition Coefficient (n-octanol/water)	Log K_{ow} = 10.3 is representative value Koc = 2.77×10^8 l/kg is representative value
BCF	BCF for LCCPs is considered to be <2,000 l/kg. Thus it is extrapolated that vLCCPs are unlikely to meet the bioaccumulative criteria as well.

13. DISPOSAL CONSIDERATIONS

Waste Codes: Waste codes should be assigned by the user based on the application for which the product was used.

Disposal Instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)).

Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

Waste from Residues And Unused Products: Dispose of in accordance with local regulations.

Contaminated Packaging: Do not re-use empty containers for other substances. Empty containers should be taken to an approved waste handling site for recycling or disposal or returned to the manufacturer.

14. TRANSPORT INFORMATION

DOT (United States): Not regulated as hazardous material.

TDG (Canada): Not regulated as dangerous goods.

IMDG (Water): Not regulated as dangerous goods.

IATA (Air): Not regulated as dangerous goods.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

OSHA: This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 210.1200

DEA: Not regulated under any of the 4 DEA regulations below.

List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2)
DEA Essential Chemical Code Number
Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
DEA Exempt Chemical Mixtures Code Number

CERCLA Reportable Quantity: (RQ) per 40 CFR 302.4: Not listed.

SARA 302: Extremely Hazardous Substance: Not listed.

SARA 311/312 Hazardous chemical: No

Superfund Amendments and Reauthorization Act of 1986 (SARA): Hazard categories: None that meet OSHA.

SARA 313 (TRI reporting): Not regulated.

EPA High Production Volume List: No

STATE REGULATIONS

California: This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

CANADA

CEPA Schedule 1 List: No for these products. Yes, for Chloroalkanes $C_{10} - C_{20}$

WHMIS: Not controlled.

CHEMICAL SAFETY ASSESSMENT

No Chemical Safety Assessment has been carried out for this substance by the supplier.

INVENTORY STATUS FOR PRODUCT INGREDIENTS:

Country	Inventory Name	Substance Name	CAS Number	On Inventory
United States	Toxic Substances Control Act (TSCA) Inventory 8(b)	Alkanes, C_{21-34} –branched and linear, chloro	1417900-96-9	Yes
United States	Toxic Substances Control Act (TSCA) Inventory 8(b)	Soybean oil, epoxidized	8013-07-8	Yes
Canada	Domestic Substances List (DSL)	Paraffin waxes and Hydrocarbon waxes, chloro	63449-39-8	Yes
Canada	Non-Domestic Substances List (NDSL)			No
Canada	Domestic Substances List (DSL)	Soybean oil, epoxidized	8013-07-8	Yes
Canada	Non-Domestic Substances List (NDSL)			No
Mexico	National Inventory of Chemical Substances (INSQ)	Paraffin waxes and Hydrocarbon waxes, chloro	63449-39-8	Yes
Mexico	National Inventory of Chemical Substances (INSQ)	Epoxidized Soybean Oil	8013-07-8	Yes

* "Yes" indicates that all components of this product comply with the inventory requirements of the governing country(ies).

16. OTHER INFORMATION

NFPA	
Health	1
Flammability	1
Instability	0

HMIS® Rating	
Health	1
Flammability	1
Physical Hazard	0
Personal Protection	B

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ACRONYMS:

ACGIH	American Conference of Governmental Industrial Hygienists
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CEPA	Canadian Environmental Protection Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)
CFR	Code of Federal Regulations
CHEMTREC	Chemical Transportation Emergency Center
DOT	United States Department of Transportation
EPCRA	Emergency Planning and Community Right-to-Know
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IMDG	International Maritime Dangerous Goods
K_{oc}	The value of Koc indicates where a chemical is likely to end up - surface water or ground water. For example, a chemical with large Koc values tend to adsorb onto soil and has potential for contaminating surface water.
LC_{50}	Lethal Concentration - median dose at which 50% of test animals die from inhalation
LOAEL	Lowest Observed Adverse Effect Level
Log K_{ow}	Octanol-Water Partition Coefficient. The higher the number, the more bioavailable (prefers partitioning into soil organic matter rather than water).
NFPA	National Fire Protection Association

NOAEL	No Observed Adverse Effect Level
NTP	Normal Temperature and Pressure: 760 mmHg and 20ºC or 1 atm and 68º F
NTP	National Toxicology Program
OSHA	Occupational Health and Safety Administration
RCRA	Resource Conservation and Recovery Act
TRI	Toxic Release Reporting (US EPA)
SARA	US EPA Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheet (formerly known as MSDS – Material Safety Data Sheet)
TDG	Transport of Dangerous Goods (Canada)
TRI	Toxics Release Inventory (US EPA)
TSCA	Toxic Substances Control Act
US or USA	United States of America
WHMIS	Workplace Hazardous Materials Identification System (Canada)

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release. The information in the sheet was written based on the best knowledge and experience currently available.

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Technical contact for SDS: 910-419-6566 (EHS and Regulatory Compliance)