



KEYSTONE

SAFETY DATA SHEET

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HMIS RATINGS: HEALTH: 3 * FIRE: 3 REACTIVITY: 0 PERSONAL PROTECTION: H

SECTION 1: PRODUCT IDENTIFICATION

Product I.D.: 20609842
Product Name: KEYSTONE LIQUID OIL BLUE
Product Description: Solvent Blue Liquid Dye
Chemical Family: Anthraquinone dye
Effective Date: November 29, 2007

SECTION 2: HAZARD IDENTIFICATION AND EMERGENCY OVERVIEW

Emergency Overview:

Severe eye irritant, vapors harmful if inhaled-Moderate skin irritant. Harmful if swallowed.

Eye Contact:

Depending on duration, effects of unprotected contact may include severe irritation, pain, stinging, burning, redness, swelling, change of vision, discoloration, watering, itching, possible injury or chemical burns to eyes, especially with heavy or prolonged contact or without immediate rinsing. Follow ALL supervisor and Personal Protection instructions in Section 8 of this SDS.

Skin Contact:

Depending on degree of unprotected contact, vapors, mists, splashes, aerosols, or dusts of product may cause moderate irritation, redness, rash, itching, burning feeling, drying, cracking, pain, inflammation and other effects. Sufficient absorption through skin may cause nausea, headache, discomfort, adding to other exposures. Prolonged or repeated exposure may increase severity. Sensitive individuals may develop dermatitis or have allergic skin reactions with repeated or long-term chemical contact. Repeated exposure to some powdered products may cause some abrasion (wearing away) of skin.

Inhalation:

Depending on degree of unprotected inhalation, product vapors, mists, aerosols or dusts may cause severe irritation of nose, throat, lungs, cough, tight chest, chest pain, breathing difficulty, nausea, dizziness, mucous discharge, inflammation of mucous membranes, vomiting, aspiration (Material drawn into lungs when vomiting is A MEDICAL EMERGENCY), weakness, blurred vision, and other effects. Inhaling High concentrations may cause Central Nervous System Depression (Drowsiness, incoordination, slowed breathing, loss of concentration, confusion, weakness, unconsciousness).

Ingestion:

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Depending on amount swallowed, product can cause headache, gastrointestinal irritation, upset stomach, abdominal pain, nausea, vomiting, diarrhea, moderate irritation of mouth, throat, esophagus, stomach, entire gastrointestinal tract, CNS (Central Nervous System) depression including mental sluggishness, mental confusion, fatigue, weakness, dizziness, drowsiness, faintness. High dose can cause severe irritation, dizziness, loss of balance, other serious effects. (Material aspirated into lungs during vomiting IS A MEDICAL EMERGENCY and may injure lungs).

Medical Conditions Aggravated by Exposure:

Improper protection allowing contact with vapors, mists, aerosols, splashes or dusts of product by inhalation, eye contact, skin contact or swallowing is expected to aggravate one or more pre-existing conditions: Impaired respiratory functions (asthma, bronchial diseases, etc.), skin disorders, Central Nervous System disorders, kidney or liver diseases, neurological diseases, eye disorders, or nerve or circulatory disorders. Avoid contact. Persons with any of the above-mentioned conditions should avoid working with chemicals.

Skin Sensitization:

Not known to cause skin sensitization or allergic reactions. With careful handling and when good chemical hygiene procedures are followed, harmful effects are not expected. As a precaution against unforeseen or unexpected sensitivity or possible allergic reactions, follow ALL Personal Protection instructions in Section 8 of this MSDS.

Respiratory Sensitization:

Respiratory sensitization caused by inhalation of product dust, vapors, mists or aerosols has not been determined. As a precaution against aggravating existing respiratory conditions, hypersensitivity, allergic reactions, or other unforeseen health effects, be sure to read, understand and follow all supervisor instructions, and instructions for wearing Personal Protective Equipment and clothing in Section 8 of this MSDS. Avoid inhalation of product in any form. Allergic reactions and sensitivity depend on individuals and can be unpredictable.

Special Warnings:

None for this material

Unusual Health Hazards:

None for this material

Supplemental Hazard Information

No additional information is currently available

Notes to Physician

Treat Symptomatically based on Section 2 Hazard Warnings and Section 3 ingredients unless indicated otherwise

Cancer Information:

Chemical Name	CAS #	WT %	IARC	NTP	OSHA	NIOSH	ACGIH
Xylene	1330-20-7	40 -50%	Group 3 Unclassifiable on human carcinogenicity	NONE	NONE	NONE	NONE
Ethyl benzene	100-41-4	10 - 20%	Group 2B Possibly carcinogenic to humans	NONE	NONE	NONE	NONE

SECTION 3: OSHA HAZARDOUS INGREDIENTS

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Component	CAS Number	Wt %	OSHA - PEL	ACGIH - TLV	Recommended PEL
Propylene glycol ether DPM	34590-94-8	1 - 10%	100 ppm 600 mg/m3 TWA STEL Not established	100 ppm 606 mg/m3 TWA 150 ppm 909 mg/m3 STEL	Not applicable
Xylene	1330-20-7	40 - 50%	100 ppm TWA 435 mg/m3	100 ppm TWA 434 mg/m3 STEL 150 ppm 651 mg/m3	Not applicable
SOLVENT BLUE 98	74499-36-8	30 - 40%	Not established	Not established	Not applicable
Ethyl benzene	100-41-4	10 - 20%	100 PPM TWA 435 mg/m3	100 PPM TWA 434 mg/m3 STEL 125 ppm 543 mg/m3	Not applicable

Important Notice:

Unprotected contact with Section 3 ingredients may be hazardous based on OSHA 29 CFR 1910.1200 & related appendices. Unless listed or noted, unlisted components are trade secrets, confidential, non-hazardous, or not reportable. This SDS is not intended to offer full disclosure, but all component information is available to medical or emergency personnel. All hazards are based on contact exposure. Reducing or eliminating contact can reduce or eliminate risk. Use protective equipment and clothing in Section 8 to minimize or eliminate contact. Effects may be unpredictable due to individual reactions. Users are responsible for hazard determination and communication. Non-carcinogenic components are indicated within a 1-10% range. Investigated or potential carcinogens are listed within a 0.1-1% range. HMIS ratings are based on data interpretation, and vary from company to company. They are intended only for quick, general identification of the degree of potential hazards. Hazards range from 0 (Minimal) up to 4 (Severe). Consult the National Paint & Coatings Association HMIS Manual for detailed information on ratings. To handle material safely, consider all information in this SDS.

SECTION 4: FIRST AID INSTRUCTIONS

Eye Contact:

Immediately rinse with flowing water for at least 15 minutes while holding eyelids open. Get immediate medical attention, as a precaution.

Skin Contact:

Immediately remove contaminated clothing. Wash affected area with soap and rinse with plenty of water. Get medical attention, as a precaution.

Inhalation:

Immediately move person to fresh air. If breathing is difficult give oxygen, call 911, calm the individual. If not breathing, call 911, give artificial respiration (CPR) until medical help arrives. Have this Material Safety Data Sheet available.

Ingestion:

Do not induce vomiting unless directed to do so by a doctor or by other emergency medical personnel. Forced vomiting of certain chemicals may cause aspiration and lung damage. Have this Material Safety Data Sheet available.

SECTION 5: FIRE FIGHTING INSTRUCTIONS

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Flash Point:

77 - 81°F

Auto-ignition Temperature:

871 - 986°F

LEL:

1% (Xylene)

UEL:

14% (DPGME)

Unusual hazards:

None expected

Other Hazards:

Vapors can travel to sources of ignition

Types of Extinguishers:

CO2, dry chemical, foam, water fog or spray depending on type of fire

Fire Fighting Directions:

Wear self-contained breathing equipment and fire-proof clothing. Use water spray to cool fire exposed containers if they cannot be safely moved.

SECTION 6: ACCIDENTAL SPILL OR RELEASE INSTRUCTIONS**Special Precautions:**

None known. Follow general precautions shown below.

Reporting:

Check the RQ

Static Discharges:

Take precautionary measures against static discharges when cleaning up leaks or spills of powders, combustibles, or flammable liquids. Containers should be properly grounded with metal straps, cables or other appropriate means to relieve static electricity build-up or generation. .

Environmental Protection:

Immediately dike liquid spills with inert absorbent material (sand, "Oil Dry" or other commercially available spill absorbent) to contain and soak up liquid. Prevent material from entering floor drains, sewers, or any bodies of water. For powder spills, use sweeping compound, sawdust, or other appropriate material to contain dust. If possible, recover any uncontaminated materials to re-use.

Protective equipment and clothing:

Wear all proper personal protective equipment and clothing to care for spill situation. See section 8 of this MSDS.

Clean up:

After containing liquid spill by diking and soaking up with inert absorbent material, place in labeled container to be sealed for proper and regulated disposal. Only the slightest residue should remain. Try to save uncontaminated material for reuse whenever possible. For powders, use sweeping compound to minimize dust and pick up as much product as possible. Do not allow liquids to seep into drains, sewers, lakes, rivers, etc. Check Sections 1 and 2 for dye description or type. Solvent dye residue may be cleaned by scrubbing with detergent, depending on type. Do not add water to water-soluble dyes. Dye is concentrated. This will increase amount of color to remove. All cleaning or scrubbing liquids used should be absorbed and placed in labeled containers for correct disposal. Absorbent material containing solvents may release combustible or flammable vapors and should be handled accordingly, properly labeled and disposed. Check Sections 2, 5, 13 & 15 for applicable instructions and regulations.

SECTION 7: HANDLING AND STORAGE**Warnings and Precautions:**

No special precautions anticipated. Wear all PPE in section 8 as a precaution, and avoid physical contact with material.

Personal Protection:

Wear ALL proper personal protective equipment as outlined in section 8 of this MSDS.

Handling, Storage & Temperature Conditions:

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Keep containers tightly sealed in cool & dry area, out of direct sunlight. FOR PRODUCTS LISTING FLAMMABLE/COMBUSTIBLE SOLVENTS or LOW FLASH POINTS: Store away from fire hazards and ignition sources, high heat, open flames, welding, hot plates, steam pipes, radiators, etc. Maintain good ventilation. Guard against static discharges. Ground all containers before mixing or filling. Use non-sparking tools to open, close or otherwise work with containers. Limit indoor storage to approved areas with automatic sprinklers. Vapors expected to be released when material is heated during process operations. At minimum, follow all Section 8 recommendations for Exposure Controls and Personal Protection. FOR WATER-BASED PRODUCTS: DO NOT FREEZE. Also ground containers when filling or mixing powders.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**Note: Selecting protective equipment & clothing:**

When choosing personal protective equipment and clothing, consider each worker's environment, all chemicals being handled, temperature, ventilation, and all other conditions. Determination of the level of protection needed for the eyes, skin and respiratory system under working conditions is the responsibility of the product end-user or shift supervisor. At a minimum, MSDS Sections 2 & 11 should be consulted.

Eye protection:

As a precaution, wear indirectly vented, splash-proof chemical safety goggles. When handling liquids, wear splash-proof goggles under a clear face-shield. Face shield is not to be used without these goggles. The type or extent of protection needed should be determined by the product end-user or shift supervisor.

Skin Protection:

Always wear impervious, chemical-resistant synthetic or rubber gloves. Check with manufacturer for best glove for the material being handled. Wear good quality long sleeved work shirt, coveralls, and a rubber or plastic apron. Wash hands after handling and before eating, drinking or using restroom. Shower after each shift. Clean contaminated but reusable protective equipment and clothing before reusing and wearing again. Discard contaminated disposable gloves and clothing. The type or extent of protection needed should be determined by the product end-user or shift supervisor.

Respiratory Protection:

Depending on type of material handled and processing conditions, it is recommended that an appropriate NIOSH approved organic vapor/mist respirator, or dust respirator (with proper filters as required) be worn when exposure to product is expected. After each shift or when equipment becomes contaminated, clean respirator and replace filters in compliance with 29 CFR 1910.134. The type or extent of protection needed should be determined by the product end-user or shift supervisor.

Eye Washes and Other Protection:

Eye wash stations and drench showers should be located within 100 feet or 10-second walk of the work area per ANSI standard Z358.1-1990.

Ventilation:

Local exhaust should be used to maintain exposure limits below specified amounts recommended by OSHA, NIOSH, or ACGIH and to draw spray, aerosol, vapors, or dusts away from workers and prevent routine inhalation. At least 10 air changes per hour are recommended for good room ventilation.

Airborne Exposure Limits:

Chemical Name	CAS #	WT %	NIOSH - REL	NIOSH - IDLH	OTHER OEL'S
Propylene glycol ether DPM	34590-94-8	1 - 10%	100 ppm 600 mg/m3 TWA 150 ppm 900 mg/m3 STEL	Not established	Not established
Xylene	1330-20-7	40 -50%	Not established	900 ppm	Not established
Ethyl benzene	100-41-4	10 - 20%	Not established	800 ppm	Not established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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pH:	Not applicable
% Water Content:	0
% Total Solids / Non-Volatiles:	30-45
% Total VOC:	50-60
% Solvents:	50-60
% Other Components:	Undisclosed
Boiling Point:	279 - 291 °F
Color:	Dark Blue
Form:	Flammable liquid
Odor:	Aromatic
Freezing/Melting Point:	Not applicable
Lbs. per gallon:	Not Established
Specific Gravity (Liquid):	Approx. 0.96
Vapor Pressure:	5.0 - 6.6 (Xylene)
Water Solubility:	Insoluble
Solvent Solubility:	Test as applicable
Other Properties:	No further data

All Data shown above are typical values, not specifications.

SECTION 10: STABILITY AND REACTIVITY

Stability:

Product is expected to be stable under normal, ambient (controlled) conditions concerning heat, moisture, pressure, fire and ignition hazards, and ventilation. Contact with incompatible or reactive materials may cause hazardous reactions in some products if indicated. Check information below.

Hazardous Polymerization:

Product will not undergo polymerization.

Conditions to Avoid:

Incompatibles, all fire & ignition hazards, heat & heated surfaces.

Incompatible Materials:

Acids, strong alkalis, strong oxidizers.

Hazardous Decomposition Products:

In fire: Oxides of carbon, nitrogen, and other harmful fumes.

Possible Hazard Reactions:

None known

SECTION 11: TOXICOLOGICAL INFORMATION

Oral LD50 (Rat):	Xylene: 4300 mg/kg Propylene glycol ether DPM: 6600 mg/kg
Dermal LD50 (Rabbit):	No data currently available
Eye Effects (Rabbit):	Xylene: Severe irritant
Skin Effects (Rabbit):	Xylene: Moderate irritant
Mutagenicity:	Solvent Blue 98: Positive in the Ames Test. Human relevance unknown.
Inhalation LC50 (Rat):	Xylene: 6700 ppm/4 hrs Xylene: 29.09 mg/l 4 hrs
Skin Sensitization (Guinea Pig):	No data currently available
Respiratory Sensitization:	No data currently available
Additional Toxicity Data:	Animal studies show chronic xylene inhalation may cause brain damage.
Supplemental Test Data:	No data currently available
Other Data:	No data currently available

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SECTION 12: ECOLOGICAL DATA

BOD:	No data currently available
COD:	No data currently available
Aquatic Toxicity:	No data currently available
Biodegradability:	No data currently available
Persistence:	No data currently available
Ecotoxicity:	No data currently available
Sewage Treatment:	No data currently available
Other Data:	No additional data is available
Supplemental Test Data:	No data currently available

SECTION 13: DISPOSAL AND ENVIRONMENTAL CONSIDERATION**Reuse of materials:**

Reclaim all uncontaminated material to reuse, recycle or otherwise rework whenever possible.

Contain - Do not release:

Do not release into sewers, water systems, ground systems or ecosystems without proper authorization.

Disposal Methods:

Incinerate, treat, or bury (landfill), after sampling and testing, at facility approved by applicable federal, state, and local authorities.

Empty Containers:

Empty containers may contain residue and/or vapors and should not be reused unless professionally cleaned and reconditioned. Crush if not cleaned, to prevent reuse.

Applicable Regulations: See Section 15 if regulated

Special Instructions: See Section 15 if regulated

SECTION 14: SHIPPING AND TRANSPORTATION INFORMATION

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DOT Regulations (Ground):

Proper Shipping Name: XYLENES
Hazard Class/Division: 3
UN Number: UN1307
Hazard Label Required: FLAMMABLE LIQUID
Packing Group: III
DOT Notes: No additional instructions

IATA Regulations (Air):

Proper Shipping Name: XYLENES
Hazard Class/Division: 3
UN Number: UN1307
Packing Group: III
Hazard Label(s): FLAMMABLE LIQUID
Pass./Cargo Ltd. Qty Pkg. Y309 10 L
Pass./Cargo Pkg. Instruct: 309 60 L
Cargo Only Pkg. Instruct: 310 220 L
Special Provisions: None
ERG Code: 3L
IATA Notes: No additional instructions

IMDG / IMO Regulations (Water):

Proper Shipping Name: XYLENES
Hazard Class / Number: 3
UN Number: UN1307
Packing Group: III
Hazard Label(s): FLAMMABLE LIQUID
Packing Inst. / Spec. Prov.: P001 No S.P.
EmS: F-E, F-D
Marine Pollutant: No
IMDG / IMO Notes: No additional instructions

SECTION 15: REGULATORY INFORMATION

Component	CAS Number	Weight %	Regulatory List
Propylene glycol ether DPM	34590-94-8	1 - 10%	15: MA PA MI WA
Xylene	1330-20-7	40 -50%	2: 100, 5, 7: 100, 11: U239, 13: 1.0%
Ethyl benzene	100-41-4	10 - 20%	2: 1000, 5, 8: 1000, 11: F003, 13: 1.0% 14, 15:CA

Regulatory List Reference:

NOTE: Regulations only apply when List Number(s) below are shown on line(s) above this note.

Example A: 5, 8 (Indicates chemical is listed as an EPA HAP and a Marine Pollutant)

Example B: 10: D007, 11: 5000 (Indicates chemical is a hazardous waste (Chromium), and is an EHS with RQ of 5000 lbs.) Number immediately after List Number is the RQ.

List Numbers

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- 1-Accidental Release Substance
- 2-CERCLA 304 Hazardous Substance (RQ)
- 3-Other regulation, as designated
- 4-Clean Air Act-Sec. 111 Volatile Organic Compounds (VOC)
- 5-Clean Air Act-Sec. 112 Haz. Air Pollutant (HAP, HAP Code)
- 6-Clean Air Act-Ozone Depleting Chemical (ODC)
- 7-Clean Water Act-RQ
- 8-Clean Water Act-Priority Pollutant (PP) RQ
- 9-Marine Pollutant (MP)
- 10-PSM Highly Hazardous Chemical
- 11-RCRA Hazardous Waste (RCRA Code)
- 12-SARA 302 Extremely Hazardous Substance (EHS) (RQ)
- 13-SARA 313 Toxic Release Inventory (TRI) (TR Conc., TR Threshold)
- 14-SOCMI Chemical (CAA)
- 15-State Lists
 - CA-California Proposition 65
 - NJ-New Jersey RTK Hazardous Substance List
 - NJ-New Jersey TCPA Extremely Hazardous Substance List
- 16-Supplemental regulatory information (SRI)

List revised 092507 wln (Current list is not applicable to previously issued Safety Data Sheets)

SARA 311/312 Hazard Categories:

Immediate / Acute Health Hazard:	YES
Chronic / Delayed Hazard:	YES
Fire Hazard:	YES
Sudden Release of Pressure Hazard:	NO
Reactivity Hazard:	NO

GLOBAL CHEMICAL REGISTRATION LISTINGS

AICS (Australia):	Components listed or exempt
ASIA-PAC (Asia-Pacific):	Status not determined
DSL (Canada):	Components listed or exempt
ECL (Korea):	Components listed or exempt
EINECS (Europe):	Components listed or exempt
ENCS (Japan):	Components listed or exempt
IECSC (China):	Components listed or exempt
PICCS (Philippines):	Components listed or exempt
TSCA (US):	Components listed or exempt
OTHER:	

Supplemental Regulatory Information:

No additional information applies, or no supplemental information is available at this time.

Additional Info:

For additional international, federal or state regulatory compliance information not shown: Call 312-666-2015.

SECTION 16: OTHER INFORMATION

Reason for Revision:	National Inventories added to sec. 15
Reviewed:	wln 112907

20609842**KEYSTONE LIQUID OIL BLUE****Disclaimer:**

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. This Material Safety Data Sheet was prepared to comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200, and supersedes any previous information. Previously dated sheets are invalid and inapplicable.

END OF MSDS