

# MATERIAL SAFETY DATA SHEET

John C Dolph (a **VonRoll** Company)

HI-THERM®

**BC-359**

**Modified Polyurethane Baking Varnish**

## SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer Name:** John C Dolph (a Von Roll Company)

**Address:** 320 New Road, P.O. Box 267, Monmouth Junction, New Jersey 08852

**Business Phone:** 732-329-2333

**Business Fax:** 732-329-1143

**CHEMTREC:** For transportation emergencies 703-527-3887 (US call 800-424-9300)

**24-Hour Emergency:** 518-395-3310

**Manufacturer MSDS Creation Date:** 09/2004

**Manufacturer MSDS Revision Date:** 05/2008

## SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Name	CAS#	% Weight	OSHA PEL	ACGIH TLV
Ligroine	8032-32-4	20-30	Not Established	300 ppm (TWA)
Xylene	1330-20-7	10 - 15	100 ppm (TWA) 150 ppm (STEL)	100 ppm (TWA) 150 ppm (STEL)
Propylene Glycol Methyl Ether	107-98-2	5-10	100 ppm (TWA) 150 ppm (STEL)	100 ppm (TWA)
Aliphatic Petroleum Distillates	64742-89-8	1-5	Not Established	Not Established
n-Butyl Alcohol	71-36-3	1-5	100 ppm (TWA)	20 ppm (TWA)
Ethyl Benzene	100-41-4	1-5	100 ppm (TWA)	100 ppm (TWA) 125 ppm (STEL)

## SECTION 3 : HAZARDS IDENTIFICATION

**Emergency Overview:**

Flammable. Irritant. Toxic.

**Applies to All Ingredients:**

**Route of Exposure:**

Eyes, Skin, Inhalation, and Ingestion.

**Potential Health Effects:**

**Eye Contact:**

Can cause severe irritation, redness, tearing, blurred vision, burns, and blindness.

**Skin Contact:**

Can cause severe irritation and burns. Prolonged and repeated exposures can cause defatting and dermatitis.

**Inhalation:**

Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea and headache. High concentrations may result in narcosis. (Central Nervous System depression)

**Ingestion:**

Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into lungs can cause chemical pneumonitis, which can be fatal.

**Chronic Health Effects:**

Chronic exposure may cause damage to the Central Nervous System, Respiratory System, Lungs, Eyes, Skin, Gastrointestinal Tract, Liver, Spleen and Kidneys.

**Target Organs:**

Liver, Kidney, CNS, eyes, skin, Respiratory System, and digestive tract

**SECTION 4: FIRST AID MEASURES**

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 20 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention if irritation persists, or symptoms of overexposure become apparent.

**Skin Contact:**

Immediately wash skin with plenty of water and soap for at least 20 minutes, while removing contaminated clothing and shoes. Get medical attention especially if irritation develops, persists, or symptoms of overexposure become apparent.

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Keep warm. Get immediate medical attention.

**Ingestion:**

If swallowed, call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting unless instructed by medical personnel. Get medical attention.

**SECTION 5: FIRE FIGHTING MEASURES**

**Fire:**

Flammable Liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Vapor can form an explosive mixture in air. Vapor can travel to a source of ignition and flash back.

**Flash Point:**

60°F (15°C)

**Upper Flammable or Explosive Limit:**

11.2%

**Lower Flammable or Explosive Limit:**

1.0%

**Auto Ignition Temperature:**

Not Established

**Extinguishing Media:**

In the event of a fire involving this material, alone or in combination with other materials, use dry chemicals, carbon dioxide, universal foam extinguishing media or water fog.

**Hazardous Combustion Byproducts:**

Oxides of carbon and oxides of nitrogen, irritating and toxic fumes and gases, and other hydrocarbons.

### Fire Fighting Instructions:

Evacuate area and fight fire from a safe distance. Containers can build up pressure if exposed to heat (fire). Use water spray to cool fire-exposed containers. DO NOT extinguish a fire resulting from the flow of this flammable liquid until the flow of liquid is effectively shut off. Explosive vapor-air mixture could form after the initial fire is extinguished. Use water spray to disperse vapors if a spill or leak has not ignited. Water runoff can cause environmental damage. Dike and collect water used to fight fire. See Section 13 for disposal considerations.

### Protective Equipment:

Wear self-contained breathing apparatus pressure-demand, NIOSH (approved or equivalent) and full protective gear.

### Special Properties:

This material may polymerize (react) when its container is exposed to heat (as during a fire). This polymerization increases pressure inside a closed container and may result in the violent rupture of the container. Heat from a fire can generate flammable vapor. Vapor can travel to a source of ignition and flash back.

### NFPA

Health: 2  
Flammability: 3  
Instability: 1  
Other: NONE

## SECTION 6: ACCIDENTIAL RELEASE MEASURES

### Spill Cleanup Measures:

Remove all sources of ignition. Absorb spill with dry inert material (e.g., dry sand or earth), then place in a chemical waste container. Clean up spills immediately observing precautions in the protective equipment section.

### Environmental Precautions:

Contain liquid to prevent contamination of soil, surface water or ground water. Avoid runoff into storm sewers and ditches, which lead to waterways. Do not flush to sewer.

### Spill/Release Reporting:

Immediately notify authorities of any reportable spill as may be required pursuant to regulations. See Section 15 for applicable CERCLA reportable quantities.

## SECTION 7: HANDLING and STORAGE

### Handling:

This product should be handled only by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals, who should take into account the fire, health and chemical hazard data.

Use with adequate ventilation. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment.

"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Containers may explode and cause injury or death. Empty drums or containers should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

### Storage:

Store in a cool, dry, well ventilated area away from sources of heat and incompatible substances. Keep container tightly closed when not in use. Consult manufacturer for shelf life.

#### Hygiene Practices:

Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

### SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

#### Engineering Controls:

Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended and or regulated exposure limits. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

#### Skin Protection Description:

Wear suitable protective clothing to prevent contact with skin.

#### Hand Protection Description:

Wear appropriate protective gloves such as neoprene or viton. Consult glove manufacturers for glove permeability data.

#### Eye/Face Protection:

Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

#### Protective Clothing/Body Protection:

If splashing is likely, wear impervious clothing and boots to prevent repeated or prolonged skin contact. Consult your supplier of personal protective equipment for additional instructions on proper usage.

#### Respiratory Protection:

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited to airborne concentrations that are typically within 10 times the exposure limit. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirators use.

#### Other Protective:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Physical State/Appearance:

Liquid

#### Color:

Clear/Amber

#### Odor:

Aromatic

#### pH:

No data.

#### Decomposition Temperature:

No data.

#### Vapor Pressure:

No data.

**Vapor Density:**

No data.

**Boiling Point:**

No data.

**Freezing Point:**

No data.

**Solubility in Water:**

Negligible

**Specific Gravity:**

0.86-0.98

**Percent Volatile:**

50-60%

**Viscosity:**

180-340 cps

**Molecular Weight:**

Mixture

**Flashpoint:**

60°F (15°C)

**Auto Ignition Temp:**

Not Established

**Upper Flammable Explosive Limit:**

11.2%

**Lower Flammable Explosive Limit:**

1.0%

## SECTION 10: STABILITY AND REACTIVITY

**Chemical Stability:**

Stable at normal temperatures and storage conditions.

**Conditions to Avoid:**

Flames, heat, sparks and high temperatures and pressures. Oxidizing conditions.

Freezing conditions.

**Incompatibilities with Other Materials:**

Strong oxidizers, strong alkalies, and strong acids.

**Hazardous Polymerization:**

Will not occur.

**Hazardous Decomposition Products:**

When heated to decomposition it emits acrid smoke & irritating fumes. Combustion byproducts include carbon dioxide, carbon monoxide, and various hydrocarbons.

## SECTION 11: TOXICOLOGICAL INFORMATION

**Propylene Glycol Methyl Ether:**

**Eye Effect:**

Eye - rabbit: 500 mg/24H; mild irritation (RTECS)

**Skin Effects:**

Skin - rabbit LD<sub>50</sub>: 13 gm/kg (RTECS)

**Ingestion Effects:**

Oral - rat LD<sub>50</sub>: 5000 mg/kg (Supplier data)

**Inhalation Effects:**

Inhalation - rat LD<sub>50</sub>: 10000 ppm/5H (RTECS);

Inhalation - human TCl<sub>o</sub>: 3000 ppm (RTECS)

**Carcinogenicity:**

Not listed by the National Toxicology Program (NTP) Annual Report on Carcinogens or by the International Agency for Research on Cancer (IARC) Monographs, or by the Occupational Safety and Health Administration (OSHA).

**Teratogenicity:**

Teratogenic effects (RTECS)

**Reproductive Toxicity:**

Many glycol ethers have dangerous human reproductive effects (Sax)

**Irritation:**

Skin - rabbit: 500 mg; open; mild irritation (RTECS)

**Other Toxicological Information:**

Intraperitoneal - rat LD<sub>50</sub>: 3720 mg/kg

Subcutaneous - rabbit LD<sub>50</sub>: 5 gm/kg

**Ethyl Benzene:**

**Eye Effect:**

Eye - rabbit: 500 mg; severe irritation (RTECS)

**Skin Effects:**

No data reported in the cited references as of the revision date.

**Ingestion Effects:**

Oral - rat LD<sub>50</sub>: 3500 mg/kg (RTECS)

**Inhalation Effects:**

Inhalation - rat LCLo: 4000 ppm/4H (RTECS)

Inhalation - human TCLo: 100 ppm/8H (RTECS)

**Carcinogenicity:**

IARC-2B Carcinogen - Possibly Carcinogenic to Humans

Carcinogenic by RTECS criteria

**Mutagenicity:**

Human mutation data reported (RTECS).

**Reproductive Toxicity:**

Reproductive effects (RTECS)

**Irritation:**

Skin - rabbit: 15 mg/24H; open; mild irritation (RTECS)

**Other Toxicological Information:**

Intraperitoneal - mouse LD<sub>50</sub>: 2624 uL/kg

**Xylene:**

**Eye Effect:**

Eye - rabbit: 5 mg/24H; severe irritation

Eye - rabbit: 87 mg; mild irritation (RTECS)

**Skin Effects:**

Skin - rabbit LD<sub>50</sub>: >1700 mg/kg data for xylene (RTECS)

**Ingestion Effects:**

Oral - rat LD<sub>50</sub>: 4300 mg/kg

**Inhalation Effects:**

Inhalation - rat LC<sub>50</sub>: 5000 ppm/4H (RTECS)

Inhalation - human TCLo: 200 ppm (RTECS)

**Carcinogenicity:**

IARC-3 Carcinogen - Unclassifiable as to Carcinogenicity in Humans

ACGIH TLV-A4 - Not Classifiable as a Human Carcinogen

**Mutagenicity:**

Mutation data reported (Sax)

**Reproductive Toxicity:**

Reproductive effects (RTECS)

**Irritation:**

Skin - rabbit: 100%; moderate irritation

**Other Toxicological Information:**

Intraperitoneal - rat LD<sub>50</sub>: 2459 mg/kg

Subcutaneous - rat LD<sub>50</sub>: 1700 mg/kg

**Aliphatic Petroleum Distillates:**

**Acute Health Effects:**

The toxicological and physiological properties of this material have not been investigated. Use appropriate procedures and precautions to prevent or minimize exposure to the skin, eyes or respiratory system.

**Carcinogenicity:**

Not listed by the National Toxicology Program (NTP) Annual Report on Carcinogens or by the International Agency for Research on Cancer (IARC) Monographs, or by the Occupational Safety and Health Administration (OSHA).

**SECTION 12: ECOLOGICAL INFORMATION**

**Ecotoxicity:**

No data.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal:**

Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines, by a licensed disposal company.

**SECTION 14: TRANSPORT INFORMATION**

**DOT Shipping Name:**

PAINT

**DOT UN Number:**

UN1263

**DOT Hazard Class: 3**

**DOT Packing Group: II**

**Marine Pollutant: NONE**

**SECTION 15: REGULATORY INFORMATION**

**All ingredients:**

**TSCA 8(b): Inventory Status**

Listed or Exempt

**SARA 313 Compounds:**

Ethylbenzene / 100-41-4

n-Butyl Alcohol / 71-36-3

Xylene (Mixed Isomers) / 1330-20-7

**Propylene Glycol Methyl Ether:**

**State:**

Glycol ethers can be found on the following state right to know lists: Pennsylvania and Massachusetts.

**Ethyl Benzene:**

**Section 302 Extremely Hazardous Substances (RQ):**

1000 pounds (454 kg)

**Section 312 Hazard Category:**

Acute: Yes  
Chronic: Yes  
Fire: Yes

**State:**

Ethyl benzene can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, and Massachusetts.

**Xylene:**

**Section 302 Extremely Hazardous Substances (RQ):**

100 pounds (45.4 kg)

**Section 312 Hazard Category:**

Acute: Yes  
Chronic: Yes  
Fire: Yes

**State:**

Xylene can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, and Massachusetts.

**Aliphatic Petroleum Distillates:**

**Section 312 Hazard Category:**

Acute: Yes  
Chronic: Yes  
Fire: Yes

**State:**

Aliphatic petroleum distillates can be found on the following state right to know lists: California, New Jersey, and Pennsylvania.

**SECTION 16: ADDITIONAL INFORMATION**

**HMIS**

Health: \*2  
Fire Hazard: 3  
Physical Hazard: 1

**Disclaimer:**

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