SAFETY DATA SHEET

Product name: BPFC-DYE2 / BPFC-DYE16 Issue Date: 07/09/2019

Anchor Color & Chemical recommends and requests that you read and understand the entire SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your application requires another safe method.

1. IDENTIFICATION

Product name: PROTECTION FIRST CLASS: BLACK DYE

Recommended use of the chemical and restrictions on use

Identified uses: Colorant

COMPANY IDENTIFICATION

The Berkebile Oil Co., Inc. PO BOX 715 Somerset, PA 15501

Customer Information Number:

(814) 442-1656

INFO@BERKEBILEOIL.COM

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: 1 800 424 9300

2. HAZARDS IDENTIFICATION

Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Carcinogenicity - Category 2

Specific target organ toxicity - single exposure - Category 3

Aspiration hazard - Category 1

Label elements Hazard pictograms





Signal word: DANGER!

Hazards

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness

Suspected of causing cancer

Precautionary statements

Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ ventilating/ lighting/ equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

Wash skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/ eye protection/ face protection.

Response

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Get medical advice/ attention if you feel unwell.

Do NOT induce vomiting.

If skin irritation occurs: Get medical advice/ attention.

If eye irritation persists: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Solution of organic compounds

This product is a mixture.

Component	CASRN	Concentration	
C.I. Solvent Blue 98	74499-36-8	30-35.5%	
3H-Pyrazol-3-one,2,4-dihydro-5-methyl-2-phenyl-, 4- [(4-C7-17-branched alkylphenyl)azo] derivs.	97660-72-5	10-15%%	
C. I. Solvent Red 164	92257-31-3	15-20%	
Heavy Aromatic Petroleum Distillate	64742-94-6	35-40%	
Naphthalene	91-20-3	0-5%	

4. FIRST AID MEASURES

Description of first aid measures

Inhalation: Remove to fresh air. Supply oxygen or artificial respiration if needed. Immediate medical attention is required.

Skin contact: Wash off with soap and plenty of water. Remove contaminated clothing. Consult a physician. Wash clothing before reuse. Do not take clothing home to be laundered.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Ingestion: Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person.
IMMEDIATELY see a physician. Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Exposure to xylene can affect the CNS, pulmonary, cardiovascular, and
gastrointestinal systems. Liver enzymes, EKG, serum electrolytes, and a chest X-ray should be done
in cases of massive exposure.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use the following extinguishing media when fighting fires involving this material: Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical Water spray

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Unsuitable extinguishing media: no data available

Special hazards arising from the substance or mixture

Hazardous combustion products: Combustion generates toxic fumes of the following: Carbon oxides Nitrogen oxides (NOx)

Unusual Fire and Explosion Hazards: Vapors can travel to a source of ignition and flash back. Heated material can form flammable or explosive vapors with air. Closed containers may rupture via pressure build-up when exposed to fire or extreme heat.

Advice for firefighters

Fire Fighting Procedures: Move containers promptly out of fire zone. If removal is impossible, cool containers with water spray. Remain upwind. Avoid breathing noxious fumes from fire-exposed material. Contain run-off.

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations. If exposed to material during clean-up operations, see SECTION 4, First Aid Measures, for actions to follow.

Environmental precautions: WARNING: KEEP SPILLS AND CLEANING RUNOFFS OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER.

Methods and materials for containment and cleaning up: Evacuate personnel to safe areas. Eliminate all ignition sources including those beyond the immediate spill area. Ventilate the area. Floor may be slippery; use care to avoid falling. Contain spills immediately with inert materials (e.g., sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal. Avoid breathing vapor.

7. HANDLING AND STORAGE

Precautions for safe handling: Handle and open container with care. The pressure in sealed containers can increase under the influence of heat.

Conditions for safe storage: Avoid temperature extremes during storage; ambient temperature preferred. Store away from excessive heat (e.g. steampipes,radiators), from sources of ignition and from reactive materials. Ground all metal containers during storage and handling. Keep tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Material can burn; limit indoor storage to approved areas equipped with automatic sprinklers. Avoid all ignition sources.

Other data: Vapors can be evolved when material is heated during processing operations. See SECTION 8, Exposure Controls/Personal Protection, for types of ventilation required. Ground all containers when transferring material. Wash after handling and shower at end of work period.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Valu e/Notation
Heavy Aromatic Distillate	Supplier	TWA 50 mg/	m3
Naphthalene	OSHA NIOSH NIOSH	TWA 10 ppm TWA 10 ppm STEL 15 ppm	1

Exposure controls

Engineering controls: Use explosion-proof local exhaust ventilation with a minimum capture velocity of 100 ft/min (0.5 m/sec) at the point of vapor evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

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

Individual protection measures

Eye/face protection: Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Eye protection worn must be compatible with respiratory protection system employed.

Skin protection

Hand protection: Chemical-resistant gloves should be worn whenever this material is handled. Rinse and remove gloves immediately after use. Wash hands with soap and water.

Other protection: Where splashing is possible, full chemically resistant protective clothing (e.g. acid suit) and boots are required.

Respiratory protection: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a

respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Up to 1000 ppm organic vapor: Wear a properly fitted NIOSH approved (or equivalent) full-facepiece, air-purifying respirator, OR full facepiece, airline respirator in the pressure demand mode. Above 1000 ppm organic vapor or Unknown: Wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode, OR full-facepiece, airline respirator in the pressure demand mode with emergency escape provision. Air-purifying respirators should be equipped with NIOSH approved (or equivalent) organic vapor cartridges and N95 filters. If oil mist is present, use R95 or P95 filters.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state liquid
Color dark liquid
Odor aromatic

Odor Threshold no data available

PH Not applicable

Melting point/range no data available

Freezing point -20F

Boiling point (760 mmHg) 137.00 - 144.00 °C (278.60 - 291.20 °F) Xylene

Flash point > 62 °C (144 °F) Tag closed cup

Evaporation Rate (Butyl Acetate

= 1)

<.05 Heavy Petroleum Aromatic Distillate

Flammability (solid, gas) Not Applicable
Lower explosion limit 7.00 % vol
Upper explosion limit .6 % vol

Vapor Pressure 5.000 - 6.600 mmHg at 20.00 °C (68.00 °F) Xylene

Relative Vapor Density (air = 1) >1
Relative Density (water = 1) 0.9600
Water solubility insoluble

Partition coefficient: n- no data available

octanol/water

Auto-ignition temperature 425.00 - 530.00 °C (870.80 - 986.00 °F) Xylene

Decomposition temperature no data available

Dynamic Viscosity 5 - 20 mPa.s at 20 °C (68 °F)

Kinematic Viscosity no data available
Explosive properties no data available
Oxidizing properties no data available

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NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: no data available

Chemical stability: no data available

Possibility of hazardous reactions: This material is considered stable. However, avoid contact with ignition sources (e.g. sparks, open flame, heated surfaces).

Product will not undergo polymerization.

Conditions to avoid: no data available

Incompatible materials: Acids Strong Alkalis Strong Oxidizers

Hazardous decomposition products: There are no known hazardous decomposition products for this material.

11. TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

Acute toxicity

Acute oral toxicity

Product test data not available.

Acute dermal toxicity

Product test data not available.

Acute inhalation toxicity

Product test data not available.

Skin corrosion/irritation

Product test data not available.

Serious eye damage/eye irritation

Product test data not available.

Sensitization

Product test data not available.

Specific Target Organ Systemic Toxicity (Single Exposure)

Product test data not available.

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Specific Target Organ Systemic Toxicity (Repeated Exposure)

Product test data not available.

Carcinogenicity

Product test data not available.

Teratogenicity

Product test data not available.

Reproductive toxicity

Product test data not available.

Mutagenicity

Product test data not available.

Aspiration Hazard

Product test data not available.

COMPONENTS INFLUENCING TOXICOLOGY:

C.I. Solvent Blue 98

Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

LD50, Rat, > 5,000 mg/kg No deaths occurred at this concentration.

Acute dermal toxicity

The dermal LD50 has not been determined.

Acute inhalation toxicity

The LC50 has not been determined.

Skin corrosion/irritation

Brief contact is essentially nonirritating to skin.

Serious eye damage/eye irritation

May cause slight eye irritation.

Sensitization

For skin sensitization:

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

no data available

Carcinogenicity

no data available

Teratogenicity

no data available

Reproductive toxicity

no data available

Mutagenicity

In vitro genetic toxicity studies were negative in some cases and positive in other cases.

Solvent naphtha, petroleum, heavy arom.

Acute oral toxicity

LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity

LD50, Rabbit, > 2,000 mg/kg No deaths occurred at this concentration.

Acute inhalation toxicity

LC50, Rat, male and female, 4 Hour, vapour, > 5.68 mg/l

Skin corrosion/irritation

Prolonged contact may cause slight skin irritation with local redness. May cause drying and flaking of the skin.

Serious eye damage/eye irritation

May cause slight eye irritation.

Corneal injury is unlikely.

Vapor may cause eye irritation experienced as mild discomfort and redness.

Sensitization

Did not cause allergic skin reactions when tested in humans.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

May cause drowsiness or dizziness.

Route of Exposure: Inhalation

Target Organs: Central nervous system

Specific Target Organ Systemic Toxicity (Repeated Exposure)

In animals, effects have been reported on the following organs:

Lung.

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Gastrointestinal tract.

Thyroid.

Urinary tract.

Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

Cataracts and other eye effects have been reported in humans repeatedly exposed to naphthalene vapor or dust.

Reproductive toxicity

In animal studies, did not interfere with reproduction.

Aspiration Hazard

May be fatal if swallowed and enters airways.

Naphthalene

Acute oral toxicity

LD50, Rat, > 2,000 mg/kg

Excessive exposure may cause hemolysis, thereby impairing the blood's ability to transport oxygen. Ingestion of naphthalene by humans has caused hemolytic anemia. Toxicity from swallowing may be greater in humans than in animals. In humans, symptoms may include: Confusion. Convulsions. Muscle spasms or twitches. Lethargy. Coma. Lethal Dose, Humans, 5 - 15 grams

Acute dermal toxicity

Human case reports suggest Naphthalene may be absorbed through the skin in toxic amounts, especially in children. LD50, Rat, > 2,500 mg/kg

Acute inhalation toxicity

Excessive exposure may cause irritation to upper respiratory tract (nose and throat). Excessive exposure may cause lung injury. Signs and symptoms of excessive exposure may include: Headache. Confusion. Sweating. Nausea and/or vomiting.

LC50, Rat, 4 Hour, vapour, > 0.41 mg/l The LC50 value is greater than the Maximum Attainable Concentration.

Skin corrosion/irritation

Prolonged contact may cause skin irritation with local redness.

Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage.

Serious eye damage/eye irritation

May cause moderate eye irritation.

Vapor may cause eye irritation experienced as mild discomfort and redness.

Sensitization

For skin sensitization:

Skin contact may cause an allergic skin reaction in a small proportion of individuals. Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Available data are inadequate to determine single exposure specific target organ toxicity.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Observations in animals include:

Respiratory effects.

Excessive exposure may cause hemolysis, thereby impairing the blood's ability to transport oxygen.

Cataracts and other eye effects have been reported in humans repeatedly exposed to naphthalene vapor or dust.

Ingestion of naphthalene by humans has caused hemolytic anemia.

Carcinogenicity

Has caused cancer in some laboratory animals. In humans, there is limited evidence of cancer in workers involved in naphthalene production. Limited oral studies in rats were negative.

Teratogenicity

Did not cause birth defects in laboratory animals.

Reproductive toxicity

Available data are inadequate to determine effects on reproduction.

Mutagenicity

In vitro genetic toxicity studies were negative in some cases and positive in other cases.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

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Component	List	Classification
Naphthalene	IARC	Group 2B: Possibly carcinogenic to
		humans
	US NTP	Reasonably anticipated to be a human carcinogen
	ACGIH	A3: Confirmed animal carcinogen with unknown relevance to humans.

12. ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

General Information

There is no data available for this product.

Toxicity

C.I. Solvent Blue 98

Acute toxicity to fish

No relevant data found.

Solvent naphtha, petroleum, heavy arom.

Acute toxicity to fish

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested). LC50, Freshwater fish, 96 Hour, 10 mg/l

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, 3 - 10 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

ErC50, Marine algae (Skeletonema costatum), 72 Hour, Cell Density, 2.5 mg/l

Naphthalene

Acute toxicity to fish

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, 0.11 mg/l

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna, static test, 48 Hour, 1.6 - 24.1 mg/l

Acute toxicity to algae/aquatic plants

ErC50, Skeletonema costatum, Growth rate inhibition, 72 Hour, 0.4 mg/l

Chronic toxicity to fish

NOEC, Other, flow-through, 40 d, mortality, 0.37 mg/l

Persistence and degradability

C.I. Solvent Blue 98

Biodegradability: No relevant data found.

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Solvent naphtha, petroleum, heavy arom.

Biodegradability: Biodegradation may occur under aerobic conditions (in the presence of oxygen). Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

10-day Window: Fail Biodegradation: 30 - 41 % Exposure time: 28 d

Method: OECD Test Guideline 301D or Equivalent

<u>Naphthalene</u>

Biodegradability: Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%).

Theoretical Oxygen Demand: 3.00 mg/mg

Biological oxygen demand (BOD)

Incubation Time	BOD	
5 d	57.000 %	
10 d	71.000 %	

20 d	71.000 %

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 5.9 Hour

Method: Estimated.

Bioaccumulative potential

C.I. Solvent Blue 98

Bioaccumulation: No relevant data found.

Solvent naphtha, petroleum, heavy arom.

Bioaccumulation: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7)

Partition coefficient: n-octanol/water(log Pow): 2.9 - 6.1 OECD Test Guideline 117 or

Bioconcentration factor (BCF): 61 - 115 Oncorhynchus mykiss (rainbow trout) Estimated.

Naphthalene

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 3.3 Measured Bioconcentration factor (BCF): 40 - 300 Fish. 28 d Measured

Mobility in soil

C.I. Solvent Blue 98

No relevant data found.

Solvent naphtha, petroleum, heavy arom.

No relevant data found.

Naphthalene

Potential for mobility in soil is medium (Koc between 150 and 500).

Partition coefficient(Koc): 240 - 1300 Measured

13. DISPOSAL CONSIDERATIONS

Disposal methods: Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

DOT: Non-Regulated (when shipped in containers less than 119 gallons and less than 100 lbs of Napthalene)

UN number

Class

Packing group

Reportable Quantity

Classification for SEA transport (IMO-IMDG):

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.(Naphtha)

UN number UN 3082

Class 9
Packing group III
Marine pollutant Naphtha

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code

Consult IMO regulations before transporting ocean bulk

BPFC-DYE2 / BPFC-DYE16

Proper shipping name Environmentally hazardous substance, liquid, n.o.s.(Naphtha)

UN number UN 3082

Class 9 Packing group III

This information is not intended to convey all specific regulatory or Operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This product contains a chemical which is listed in Section 313 at or above de minimis concentrations. The following listed chemicals are present: (Quantity present is found elsewhere on this MSDS.)

Components
Naphthalene
CASRN
91-20-3

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)

Section 103

Components CASRN RQ

Naphthalene 91-20-3 100 lbs RQ

California (Proposition 65)

This product contains a component or components known to the state of California to cause cancer:

Components CASRN Naphthalene 91-20-3

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Hazard Rating System

HMIS

Health	Flammability	Physica I
2*	1	0

^{* =} Chronic Effects (See Hazards Identification)

Revision

Identification Number: 101110076 / 1001 / Issue Date: 04/10/2015 / Version: 2.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Issue Date: 07/09/2019

Information Source and References

Product: BPFC-DYE2 / BPFC-DYE16

The Berkebile Oil Co. Inc. requests that each customer or recipient of this SDS study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Please contact us for the most current version.

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