according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: 06.08.2017

Page 1 of 10

Firefly Yellow Lamp Oil Dye

1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Material Name: Firefly Yellow Lamp Oil Dye Product code: Firefly Yellow Lamp Oil Dye

1.2 Relevant identified uses of the substance or mixture and uses advised against: Candles, Felt Tip, Marker Inks, and Specilaty Inks

1.3 Details of the manufacturer/supplier of the safety data sheet

Supplier: Firefly Fuel, Inc. 1550 Global Court

Sarasota, FL 34240 USA 1-(888)-472-6740

Emergency telephone number:

CHEMTREC

1-800-424-9300 (US/Canada) +01 703-527-3887 (International)

2 Hazards identification

2.1 Classification of the substance or mixture:

In compliance with EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments. Acute toxicity (oral), category 4. Eye irritation, category 2B.

Acute aquatic hazard, category 2.

Chronic aquatic hazard, category 2.

Hazard-determining components of labeling:

Benzyl benzoate

2.2 Label elements

Hazard pictograms:



Signal word: Warning

Hazard statements:

H302 Harmful if swallowed.

H320 Causes eye irritation.

H401 Toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P391 Collect spillage.

P405 Store locked up.

P501 Dispose of contents and container as instructed in Section 13.

2.3 Other hazards:None known



according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: 06.08.2017

Page 2 of 10

Firefly Yellow Lamp Oil Dye

Information concerning particular hazards for humans and environment:

The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments, and extended by company and literature data. The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

3 Composition/information on ingredients

3.1 Substance: Not applicable

3.2 Mixture:

Identification	Name	Classification according to Regulation (EC) No1278/2008 (CLP)	Weight %
CAS number: 120-51-4 EC number: 204-402-9	Benzyl benzoate	Acute Tox. 4; H302 Aquatic Chronic 2; H411	50-75

Additional information: None Full Text of H and EUH statements: See section 16

4 First aid measures

4.1 Description of first aid measures

General information: None.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position.

Maintain an unobstructed airway.

Get medical advice/attention if you feel unwell.

After skin contact:

Rinse affected area with soap and water.

If symptoms develop or persist, seek medical attention.

After eye contact:

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open.

Remove contact lenses, if present and easy to do so.

Continue rinsing for 15-20 minutes.

Get medical advice if eye irritation persists.

After swallowing:

Do not induce vomiting and rinse mouth. If vomiting occurs naturally, lie on your side, in the recovery position. Get medical advice if you feel unwell or concerned.

4.2 Most important symptoms and effects, both acute and delayed:

- None
- **4.3 Indication of any immediate medical attention and special treatment needed:** No additional information.

5 Firefighting measures

5.1 Extinguishing media Suitable extinguishing media:

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: 06.08.2017

Page 3 of 10

Firefly Yellow Lamp Oil Dye

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. **Unsuitable extinguishing media:** None

5.2 Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Advice for firefighters

Protective equipment:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit.

5.4 Additional information: None

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Ensure air handling systems are operational. Wear protective eye wear, gloves and clothing. Ensure adequate ventilation.

6.2 Environmental precautions:

Should not be released into the environment. Prevent from reaching drains, sewer or waterway.

6.3 Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing. Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders).

Dispose of contents / container in accordance with local regulations.

6.4 Reference to other sections: None

7 Handling and storage

7.1 Precautions for safe handling:

Use only with adequate ventilation. Avoid breathing mist or vapor. Do not eat, drink, smoke or use personal products when handling chemical substances.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed. Protect from freezing and physical damage. Store in a cool, well-ventilated area.

7.3 Specific end use(s):No additional information.

8 Exposure controls/personal protection







8.1 Control parameters

Occupational Exposure limit values:

No occupational exposure limits noted for the ingredient(s).

Biological limit value:

No biological exposure limits noted for the ingredient(s).

Derived No Effect Level (DNEL):

Not determined or not applicable.

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: 06.08.2017

Page 4 of 10

Firefly Yellow Lamp Oil Dye

Predicted No Effect Concentration (PNEC):

Not determined or not applicable.

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. Biological monitoring may also be appropriate for some substances.

8.2 Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygienic measures:

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse.

Environmental exposure controls:

Select controls based on a risk assessment of local conditions. See section 6 for information on accidental release measures.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance (physical state, color):	Dark Yellow Viscous Liquid	Explosion limit lower: Explosion limit upper:	Not determined or not available. Not determined or not available.
Odor:	Not determined or not available.	Vapor pressure:	Not determined or not available.
Odor threshold:	Not determined or not available.	Vapor density:	Not determined or not available.
pH-value:	Not determined or not available.	Relative density:	Not determined or not available.
Melting/Freezing point:	Not determined or not available.	Solubilities:	Insoluble in water.
Boiling point/range:	0°F	Partition coefficient (n- octanol/water):	Not determined or not available.
Flash point (closed cup):	298°F	Auto/Self-ignition temperature:	896°F
Evaporation rate:	Not determined or not available.	Decomposition temperature:	Not determined or not available.

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: 06.08.2017

Firefly	y Yellow Lamp Oil Dye			
	Flammability (solid, gaseous):	Not determined or not available.	Dynamic viscosity:	Not determined or not available.
	Density:	Not determined or not available.	Kinematic viscosity:	Not determined or not available.

10 Stability and reactivity

- 10.1 Reactivity: Does not react under normal conditions of use and storage.
- 10.2 Chemical stability: Stable under normal conditions of use and storage.
- 10.3 Possibility of hazardous reactions: None under normal conditions of use and storage.

10.4 Conditions to avoid:

Oxidizing & reducing agents may destroy color.

10.5 Incompatible materials:

Oxidizing & reducing agents may destroy color.

10.6 Hazardous decomposition products:

CO, CO2, Oxides of Nitrogen and other potentially toxic fumes.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Assessment: Harmful if swallowed

Product data: No data available.

Substance data:

Name	Route	Result
Benzyl benzoate	oral	LD50 - Rabbit - 1,680 mg/kg

Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Serious eye damage/irritation

Assessment: Causes eye irritation

Product data: No data available.

Substance data: No data available.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

- Product data: No data available.
- Substance data: No data available.

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: 06.08.2017

Firefly Yellow Lamp Oil Dye

Reproductive Toxicity

Assessment: Based on available data, the classification criteria are not met. **Product data:** No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available. Other information: No data available.

12 Ecological information

12.1 Toxicity

Acute (short-term) toxicity

Assessment: Toxic to aquatic life

Product data: No data available.

Substance data:

Ν	lame	Result
В	Benzyl benzoate	LC50 - Gammarus fasciatus (Scud) - 4.8 g/L - 96 hr

Chronic (long-term) toxicity

Assessment: Toxic to aquatic life with long lasting effects Product data: No data available.

Substance data: No data available.

12.2 Persistence and degradability

Product data: No data available.

Substance data: No data available.

12.3 Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

12.4 Mobility in soil

Product data: No data available.

Substance data: No data available.

12.5 Results of PBT and vPvB assessment

PBT assessment: This product does not contain any substances that are assessed to be a PBT. **vPvB assessment:** This product does not contain any substances that are assessed to be a vPvB.

12.6 Other adverse effects:

No data available.

13 Disposal considerations

Page 6 of 10

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: 06.08.2017

Page 7 of 10

Firefly Yellow Lamp Oil Dye

13.1 Waste treatment methods

Relevant information:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities.

14 Transport information

United States Transportation of dangerous goods (49 CFR DOT)

14. 1	UN number	3082
14. 2	UN proper shipping name	Environmentally hazardous substance, liquid, N.O.S. Benzyl Benzoate
14. 3	UN transport hazard class(es)	9
14. 4	Packing group	111
14. 5	Environmental hazards	Marine Pollutant Benzyl Benzoate
14. 6	Special precautions for user	None

International Carriage of Dangerous Goods by Road/Rail (ADR/RID)

14. 1	UN number	3082
14. 2	UN proper shipping name	Environmentally hazardous substance, liquid, N.O.S. Benzyl Benzoate
14. 3	UN transport hazard class(es)	9
14. 4	Packing group	111
14. 5	Environmental hazards	Marine Pollutant Benzyl Benzoate
14. 6	Special precautions for user	None

International Carriage of Dangerous Goods by Inland Waterways (ADN)

14. 1	UN number	3082
14. 2	UN proper shipping name	Environmentally hazardous substance, liquid, N.O.S. Benzyl Benzoate
14. 3	UN transport hazard class(es)	9
14. 4	Packing group	
14. 5	Environmental hazards	Marine Pollutant Benzyl Benzoate
14. 6	Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: 06.08.2017

Page 8 of 10

14. UN number	3082
1 14. UN proper shipping name 2	Environmentally hazardous substance, liquid, N.O.S. Benzyl Benzoate
14. UN transport hazard class(es)3	9
14. Packing group 4	
14. Environmental hazards 5	Marine Pollutant Benzyl Benzoate
14. Special precautions for user 6	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

14. 1	UN number	3082
14. 2	UN proper shipping name	Environmentally hazardous substance, liquid, N.O.S. Benzyl Benzoate
14. 3	UN transport hazard class(es)	9
14. 4	Packing group	111
14. 5	Environmental hazards	Marine Pollutant Benzyl Benzoate
14. 6	Special precautions for user	None

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code		
Bulk Name	None	
Ship type	None	
Pollution category	None	

15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture. United States regulations

Inventory listing (TSCA):

		120-51-4	Benzyl benzoate	Listed
--	--	----------	-----------------	--------

Significant New Use Rule (TSCA Section 5): Not listed

Export notification under TSCA Section 12(b): Not listed

SARA Section 311/312 (Specific toxic chemical listings)

Acute	Chronic	Fire	Pressure	Reactive
Yes	Yes	No	No	No

SARA Section 302 extremely hazardous substances: Not listed

SARA Section 313 (specific toxic chemical listings): Not listed

CERCLA: Not listed

RCRA: Not listed

Section 112(r) of the Clean Air Act (CAA): Not listed

Massachusetts Right to Know: Not listed

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: 06.08.2017

Firefly Yellow Lamp Oil Dye New Jersey Right to Know: Not listed New York Right to Know: Not listed Pennsylvania Right to Know: Not listed California Proposition 65: Not listed **European regulations Inventory listing (EINECS):** Not determined. **REACH SVHC candidate list:** Not listed **REACH SVHC Authorizations:** Not listed **REACH Restriction:** Not listed Water hazard class (WGK): Not determined. **Canada regulations** Domestic substances list (DSL): Benzyl benzoate 120-51-4 Listed Non-domestic substances list (NDSL): Not listed **China regulations** Inventory of Existing Chemical Substances in China (IECSC): 120-51-4 Benzyl benzoate Listed Inventory of Prohibited Chemicals: Not listed Catalog of Hazardous Chemicals: Not listed List of Toxic Chemicals Restricted to be Imported and Export in China: Not listed List of Hazardous Chemicals for Priority Management - SAWS: Not listed The Catalog of Priority Hazardous Chemicals for Environment Management (PHCs)-MEP: Not listed Australia regulations Australian Inventory of Chemical Substances (AICS): 120-51-4 Benzyl benzoate Listed Japan regulations **Existing and New Chemical Substances (ENCS):** 120-51-4 Benzyl benzoate Listed Industrial Safety and Health Law (ISHL): 120-51-4 Benzyl benzoate Listed **Korea regulations** Korea Existing Chemicals List (KECL): 120-51-4 Benzyl benzoate Listed **New Zealand regulations** New Zealand Inventory of Chemicals (NZIoC): 120-51-4 Benzyl benzoate Listed **Philippine regulations** Philippine Inventory of Chemicals and Chemical Substances (PICCS): Not determined. **Taiwan regulations** Taiwan Chemical Substance Inventory (TCSI): 120-51-4 Benzyl benzoate Listed 15.2 Chemical Safety Assessment No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16 Other information

Page 9 of 10

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: 06.08.2017

Page 10 of 10

Firefly Yellow Lamp Oil Dye

Indication of changes:

Not applicable.

Abbreviations and Acronyms: None

Summary of classification in section 3:

Acute Tox. 4; H302	Acute toxicity (oral), category 4
Aquatic Chronic 2; H411	Chronic aquatic hazard, category 2

Summary of hazard statements in section 3:

H302	Harmful if swallowed
H411	Toxic to aquatic life with long lasting effects

Disclaimer::

This product has been classified in accordance within GHS guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 1-0-0

HMIS: 1-0-0

Initial preparation date: 06.08.2017

End of Safety Data Sheet