

SAFETY DATA SHEET

Preparation Date: No data available

Revision Date: 03/25/2015

Revision Number: G1

Product identifier

Product code:

D1049

Product Name:

DIOCTYL PHTHALATE

Other means of identification

Synonyms:

1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
2-Ethylhexyl phthalate
DEHP
Diethylhexyl phthalate
Di(2-ethylhexyl)phthalate
Bis(2-ethylhexyl) 1,2-benzenedicarboxylate
Bis(2-ethylhexyl) phthalate
Bis-(2-ethylhexyl)ester kyseliny ftalove [Czech]
Bisoflex 81
Bisoflex DOP
Celluflex DOP
Compound 889
DEHP
DOF [Russian plasticizer]
Di(2-ethylhexyl) orthophthalate
Di(2-ethylhexyl) phthalate
Di(2-ethylhexyl)orthophthalate
Di(2-ethylhexyl)phthalate
Diacizer DOP
Diethylhexyl phthalate
Dioctyl phthalate
Ergoplast FDO
Ergoplast FDO-S
Etalon
Etalon (plasticizer)
Ethylhexyl phthalate
Eviplast 80
Eviplast 81
Fleximel
Flexol DOP
Flexol Plasticizer DOP
Good-rite GP 264
Hatcol DOP
Hercoflex 260
Jayflex DOP
Kodaflex DEHP
Kodaflex DOP
Mollan O
Monocizer DOP
Nuoplaz DOP
Octoil
PX-138
Palatinol AH
Pittsburgh PX-138
Plasthall DOP
Platinol AH
Platinol DOP
RC Plasticizer DOP
Reomol D 79P
Reomol DOP
Sansocizer DOP
Sansocizer R 8000
Sconamoll DOP
Sicol 150
Staflax DOP
Truflex DOP
Vestinol AH
Vinicizer 80
Witcizer 312

CAS #: 117-81-7
RTECS # TI0350000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Plasticizer.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity	Category 2
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Label elements

Warning

Hazard statements

Suspected of damaging fertility or the unborn child



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

May be harmful if inhaled
Toxic to aquatic life with long lasting effects
Toxic to aquatic life

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Dioctyl Phthalate 117-81-7	117-81-7	100	*

4. FIRST AID MEASURES**First aid measures****General Advice:**

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Remove and wash contaminated clothing before re-use. Get medical attention if irritation develops.

Eye Contact:

Flush eye with water for 15 minutes. Get medical attention if irritation occurs. Call a physician or Poison Control Centre immediately.

Inhalation:

Harmful by inhalation. Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Most important symptoms and effects, both acute and delayed**Symptoms**

May cause skin irritation. May cause eye irritation.

Indication of any immediate medical attention and special treatment needed**Notes to Physician:**

Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES**Extinguishing Media****Suitable Extinguishing Media:**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media:

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical**Hazardous Combustion Products:**

Carbon oxides

Specific hazards:

Containers may explode when heated
In combustion, may emit toxic fumes

Special Protective Actions for Firefighters

Specific Methods:	No information available.
Special Protective Equipment for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:	Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Avoid contact with skin, eyes and clothing. All equipment used when handling the product must be grounded. Nonsparking tools should be used.
<u>Environmental precautions</u>	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment	Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. Use clean non-sparking tools to collect absorbed material.. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.
Methods for cleaning up	Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials. All equipment used when handling the product must be grounded.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapors or spray mist. Keep away from heat and sources of ignition. Keep container tightly sealed. Handle in accordance with good industrial hygiene and safety practice. When using do not smoke. Use only in well-ventilated areas.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a segregated and approved area. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Strong oxidizing agents. Strong bases. nitrates. Acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
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Diethyl Phthalate - 117-81-7	None	5 mg/m ³ TWA 10 mg/m ³ STEL	5 mg/m ³ TWA	None
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Canada

Components	Alberta	British Columbia	Ontario	Quebec
Diethyl Phthalate - 117-81-7	5 mg/m ³ TWA	5 mg/m ³ TWA	3 mg/m ³ TWA	5 mg/m ³ TWAEV 10 mg/m ³ STEV

Australia and Mexico

Components	Australia	Mexico
Diethyl Phthalate 117-81-7	10 mg/m ³ STEL 5 mg/m ³ TWA	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles.

Skin and body protection: Long sleeved clothing. Gloves.

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical state: Liquid	Appearance: Oily.	Color: Colorless.
Odor: Slight.	Taste No information available	Molecular/Formula weight: 390.54 g/mol
Formula: C6H4[COO(CH2)7CH3]2	Flash point (°C): 207°C	Flashpoint (°C/°F): 207°C/ 404.6°F
Flash Point Tested according to: Closed cup	Lower Explosion Limit (%): 0.3 Vol %	Upper Explosion Limit (%): 2.4 Vol %
Autoignition Temperature (°C/°F): 390.56°C/ 735°F	pH: No information available	Melting point/range(°C/°F): -55°C/ -67°F
Boiling point/range(°C/°F): 384°C/ 723.2°F	Decomposition temperature(°C/°F): > 393°C	Bulk density: No information available
Specific gravity: 0.986	Vapor pressure @ 20°C (kPa): 0.00000001	Density (g/cm3): 0.986
Evaporation rate: No information available	Vapor density: 16	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): 7.60	Viscosity: 81.4 cP @ 20°C
Miscibility: No information available	Solubility: Insoluble in cold water Slightly soluble in Carbon Tetrachloride	

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents
Reacts with bases
Reactive with acids
Reacts with nitrates

Chemical stability

Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Ignition sources. Avoid temperature exceeding the flash point. Incompatible materials.

Incompatible Materials: Strong oxidizing agents. Strong bases. nitrates. Acids.

Hazardous decomposition products: Carbon oxides.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Eyes. Inhalation. Ingestion. Skin.

Acute Toxicity

Component Information

Diocetyl Phthalate - 117-81-7

LD50/oral/rat = 30 g/kg Oral LD50 Rat
LD50/oral/mouse = 30000 mg/kg Oral LD50 Mouse
LD50/dermal/rat = 4000 mg/kg Dermal LD50 Rat
LD50/dermal/rabbit = 25 g/kg Dermal LD50 Rabbit
LC50/inhalation/rat = 23.67 mg/L Inhalation LC50 Rat 1 h
10.62 mg/L Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = 300 mg/m³
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 6860mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 30000mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 25000mg/kg

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = 10.62mg/l
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = 300 mg/m³
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact:	It may cause mild skin irritation.
Eye Contact:	May cause slight or mild eye irritation.
Inhalation	Harmful by inhalation. At significant concentrations, it may cause upper respiratory tract (nose, throat) and mucous membrane irritation. .
Ingestion	Harmful if swallowed. May cause digestive (gastrointestinal) tract irritation.
Aspiration hazard	No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated ingestion may affect the liver.

Sensitization: No information available

Mutagenic Effects: Experiments with bacteria and/or yeast have shown mutagenic effects

Carcinogenic effects: May cause cancer based on animal test data.

Components	ACGIH - Carcinogens	IARC	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Diethyl Phthalate	A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans	Monograph 101 [2013] Monograph 77 [2000] overall evaluation downgraded from 2B to 3 with supporting evidence from other relevant data Supplement 7 [1987]	Reasonably Anticipated To Be A Human Carcinogen	Present	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: May cause adverse reproductive effects based on animal data.
Developmental Effects: No information available
Teratogenic Effects: May cause birth defects (teratogenic effects)

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Ecotoxicity in water (LC50): 0.7 mg/l 96 hours [Lepomis macrochirus].
> 100 mg/l 96 hours [Channel catfish]
> 100 mg/l 96 hours [Trout].

Diethyl Phthalate - 117-81-7

Freshwater Algae Data: 0.1 mg/L EC50 Pseudokirchneriella subcapitata 96 h
130 mg/L EC50 Desmodesmus subspicatus 72 h

Freshwater Fish Species Data: 0.27 - 0.67 mg/L LC50 Pimephales promelas 96 h flow-through 1
 0.16 mg/L LC50 Pimephales promelas 96 h static 1
 0.200 mg/L LC50 Lepomis macrochirus 96 h flow-through 1
 0.200 mg/L LC50 Lepomis macrochirus 96 h static 1
 0.32 mg/L LC50 Brachydanio rerio 96 h semi-static 1
 0.32 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1
 0.32 mg/L LC50 Oryzias latipes 96 h semi-static 1
 0.32 mg/L LC50 Poecilia reticulata 96 h semi-static 1
 0.67 mg/L LC50 Oryzias latipes 96 h flow-through 1
 100 mg/L LC50 Oncorhynchus mykiss 96 h static 1

Water Flea Data: 9.4 mg/L LC50 Daphnia magna 48 h
 0.16 mg/L EC50 Daphnia magna 48 h

Persistence and degradability: Readily biodegradable

Bioaccumulative potential: Does not bioaccumulate. An estimated Biocentration Factor (BCF) value of 113.

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Dioctyl Phthalate	None	None	None	U028

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: None
ERG No: No information available
Marine Pollutant: No data available
DOT RQ (lbs): No information available

TDG (Canada)

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

14. TRANSPORT INFORMATION

ADR

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Classification Code: No information available
Description: No information available

ICAO

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

IATA

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Dioctyl Phthalate</i>	Present	Present KE-02196	Present	Present (3)-1307	Present	Present	Present 204-211-0

U.S. Regulations

Diocetyl Phthalate

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0238
New Jersey (EHS) List: 0238 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Special hazardous substance
Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
100 lb RQ
1 lb RQ
Louisiana Reportable Quantity List for Pollutants: 100lbfinal RQ
45.4kgfinal RQ
California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Diocetyl Phthalate</i>	carcinogen	Not Listed	male reproductive toxicity	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>Diocetyl Phthalate</i>	100 lb final RQ 45.4 kg final RQ	None	None	None	0.1 % de minimis concentration

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Diocetyl Phthalate</i>	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

Non-controlled

Diocetyl Phthalate

D2A

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
<i>Diocetyl Phthalate</i>	0.1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Diethyl Phthalate	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Diethyl Phthalate	Present	Not listed

EU Classification

R-phrases(s)

R60 - May impair fertility.

R61 - May cause harm to the unborn child.

S -phrase(s)

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S53 - Avoid exposure - obtain special instructions before use.

Components	Classification	Concentration Limits:	Safety Phrases
Diethyl Phthalate	Repr.Cat.2; R60-61	No information	S53 S45

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

N - Dangerous for the environment.



16. OTHER INFORMATION

16. OTHER INFORMATION

Revision Date: 03/25/2015
Prepared by: Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet