Safety Data Sheet

24 Mix phthalates in methanol

Version：V2.0.0.1
Report No.：BWQ8836-2016-MSDS-US
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*Prepared according to American OSHA HCS-2024 (29 CFR 1910.1200)

1 Identification

Product identifier

Product Name	24 Mix phthalates in methanol
Cat No.	BWQ8836-2016
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Name of the company	Weiyel Inc
Address of the company	Hedian Light Industrial Park, Chengguan Town, Shangcheng County, Xinyang City, Henan Province, China
Post code	465350
Telephone number	010-58103678
Fax number	010-84840368
E-mail address	info@weiyel.com

Emergency phone number

Emergency phone number	010-58103678

2 Hazard(s) identification

Hazard classification according to 29 CFR 1910.1200

Flammable liquids	Category 2
Aspiration hazard	Category 1
Skin Corrosion/Irritation	Category 2
Sensitization - skin	Category 1
Specific target organ toxicity - single exposure; narcotic effects	Category 3
Carcinogenicity	Category 2
Reproductive Toxicity	Category 1B
Specific target organ toxicity -	Category 1

repeated exposure	

Label elements

Hazard pictograms	
Signal word	Danger

Hazard statements

H225	Highly flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H360	May damage fertility and the unborn child
H372	Causes damage to organs through prolonged or repeated exposure(nervous system)

Precautionary statements

- Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe gas/mist/vapour/spray.
P264	Wash hands and other parts of the body (if related) thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or with adequate ventilation.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

- Response

P321	Specific treatment (see related instructions on the label).
P331	Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	Small fire: dry chemical, CO_2 or alcohol-resistant foam; Large fire: alcohol-resistant foam; Fire involving tanks, rail tank cars or highway tanks: Fight

	fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].

◆ Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.

◆ Disposal

P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.

Other hazards

	Not applicable.

Hazard description

◆ Physical and chemical hazards

	Highly flammable liquids, its vapor and air mixture can form explosive mixture.

◆ Health hazards

Inhaled	Dizziness. Drowsiness. Dullness. Headache. Nausea. Weakness. Unconsciousness.
Ingestion	Abdominal pain. (Further see Inhalation).
Skin Contact	Dry skin. Redness. Pain.
Eye	Redness. Pain.

◆ Environmental hazards

	Please refer to 12th chapter of SDS.

3 Composition/information on ingredients

Substance/mixture

	Mixture

Component	CAS No.	EC No.	Concentration (wt, %)
Dimethyl phthalate	131-11-3	205-011-6	0.15
Diethyl phthalate	84-66-2	201-550-6	0.15
Diisopropyl phthalate	605-45-8	210-086-3	0.15
Diallyl phthalate	131-17-9	205-016-3	0.15
Dipropyl phthalate	131-16-8	205-015-8	0.15
Diisobutyl phthalate	84-69-5	201-553-2	0.15
Dibutyl phthalate	84-74-2	201-557-4	0.15
Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	0.15
Bis(4-methyl-2-pentyl) phthalate	146-50-9	-	0.15
Bis(2-ethoxyethyl) phthalate	605-54-9	210-090-5	0.15

Dipentyl phthalate	131-18-0	205-017-9	0.15
Diisopentyl phthalate	605-50-5	210-088-4	0.15
1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	84777-06-0	284-032-2	0.15
Dihexyl phthalate	84-75-3	201-559-5	0.15
Benzyl butyl phthalate	85-68-7	201-622-7	0.15
Bis(2-butoxyethyl) phthalate	117-83-9	204-213-1	0.15
Dicyclohexyl phthalate	84-61-7	201-545-9	0.15
Diheptyl phthalate	3648-21-3	222-885-4	0.15
Bis(2-ethylhexyl) phthalate	117-81-7	204-211-0	0.15
Diphenyl phthalate	84-62-8	201-546-4	0.15
Dioctyl phthalate	117-84-0	204-214-7	0.15
Dibenzyl phthalate	523-31-9	208-344-5	0.15
Dinonyl phthalate	84-76-4	201-560-0	0.15
Didecyl phthalate	84-77-5	201-561-6	0.15
N-hexane	110-54-3	203-777-6	96.4

4 First-aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Skin contact	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Rest. Refer for medical attention.
Inhalation	Fresh air, rest. Refer for medical attention.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms/effects, acute and delayed

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Small fire: dry chemical, CO_2 or alcohol-resistant foam; Large fire: alcohol-resistant foam; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor

	nozzles. Cool containers with flooding quantities of water until well after fire is out.
Unsuitable extinguishing media	Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the substance or mixture

1	Will form explosive mixtures with air.
2	Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/ or vapour concentration.
3	Vapours may travel to source of ignition and flash back.
4	Liquid and vapour are flammable.
5	Development of hazardous combustion gases or vapor possible in the event of fire.
6	May expansion or decompose explosively when heated or involved in fire.

Special protective equipment and precautions for fire-fighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

1	Avoid breathing vapours and contacting with skin and eye.
2	Beware of vapours accumulating to form explosive concentrations.
3	Vapours can accumulate in low areas.
4	Emergency personnel wear positive pressure self-contained breathing apparatus. Wear protective and anti-static clothing. Wear chemical impermeable gloves.
5	Use personal protective equipment,do not breathe gas/mist/vapour/spray.
6	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
7	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

1	It is recommended that emergency personnel wear positive pressure self-contained breathing apparatus and wear anti-static clothing.
2	In case of small amount of spillage, use clean non sparking tools to collect absorption materials.
3	In case of large amount of spillage, construct cofferdam or dig a hole to collect the spillage. Use foam cover to reduce evaporation. Water spray mist can reduce evaporation, but can not reduce the flammability of the leakage in the restricted space.
4	Collect absorbent material using a clean, non-sparking tool.
5	Cover with anti-solvent foam to reduce evaporation.
6	Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
7	Water spray reduces evaporation but does not reduce the flammability of spills in confined spaces.
8	Cut off the source of the leak as much as possible.
9	Keep leaks in a ventilated place.

10	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
11	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
12	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.
13	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7 Handling and storage

Precautions for safe handling

1	Avoid inhalation of vapors.
2	Use only non-sparking tools.
3	To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded.
4	Use explosion proof equipment.
5	Handling is performed in a well ventilated place.
6	Wear suitable protective equipment.
7	Avoid contact with skin and eyes.
8	Keep away from heat/sparks/open flames/ hot surfaces.

Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

8 Exposure controls/personal protection

Control parameters

◆Occupational exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m³	ppm	mg/m³
Dimethyl phthalate	Permissible exposure standards for workers in the workplace	-	5	-	10
	Australia	-	5	-	-
	Canada - Ontario	-	5	-	-
	New Zealand	-	5	-	-
	USA - ACGIH	-	5	-	-
	USA - NIOSH	-	5	-	-
Diethyl phthalate	Japan - JSOH(2024–2025)	-	5	-	-
	Permissible exposure standards for workers in the	-	5	-	10

	workplace				
	Australia	-	5	-	-
	Canada - Ontario	-	5	-	-
	New Zealand	-	5	-	-
	USA - ACGIH	-	5	-	-
Diallyl phthalate	New Zealand	-	5	-	-
	Austria	-	5	-	-
	Denmark	-	3	-	6
	Ireland	-	5	-	-
	Latvia	-	1	-	-
	United Kingdom	-	5	-	-
Diisobutyl phthalate	New Zealand	-	5	-	-
	Denmark	-	3	-	6
	Ireland	-	5	-	-
	Latvia	-	1	-	-
	United Kingdom	-	5	-	-
Dibutyl phthalate	Japan - JSOH(2024–2025)	-	5	-	-
	Permissible exposure standards for workers in the workplace	-	5	-	10
	Australia	-	5	-	-
	Canada - Ontario	-	5	-	-
	New Zealand	0.05	0.58	-	-
	USA - ACGIH	-	5	-	-
Benzyl butyl phthalate	New Zealand	-	5	-	-
	Austria	-	3	-	5
	Denmark	-	3	-	6
	Germany (AGS)	-	20	-	40
	Germany (DFG)	-	20	-	40
	Norway	-	1	-	-
Dicyclohexyl phthalate	New Zealand	-	5	-	-
	Austria	-	5	-	-
	Denmark	-	3	-	6
	Ireland	-	5	-	-
	United Kingdom	-	5	-	-
Bis(2-ethylhexyl) phthalate	Japan - JSOH(2024–2025)	-	5	-	-

	Permissible exposure standards for workers in the workplace	-	5	-	10
	Australia	-	5	-	10
	Canada - Ontario	-	3	-	5
	New Zealand	-	5	-	10
	USA - ACGIH	-	0.1	-	-
Dioctyl phthalate	Austria	-	5	-	-
	Norway	-	3	-	-
	Romania	0.1	2	0.3	5
	Singapore	-	5	-	-
	Sweden	-	3	-	5
Dibenzyl phthalate	Austria	-	3	-	5
	Denmark	-	3	-	6
	Sweden	-	3	-	5
Dinonyl phthalate	New Zealand	-	5	-	-
	Austria	-	5	-	-
	Ireland	-	5	-	-
	Latvia	-	1	-	-
	United Kingdom	-	5	-	-
N-hexane	Japan - JSOH(2024–2025)	40	140	-	-
	Permissible exposure standards for workers in the workplace	50	176	75	220
	Australia	20	72	-	-
	Canada - Ontario	50	-	-	-
	European Union	20	72	-	-
	New Zealand	20	72	-	-

Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

Personal protection equipment

General requirement	
Eye protection	Must wear appropriate safety goggles.
Hand protection	Must wear anti static chemical protective gloves.
Respiratory protection	Must wear appropriate personal respiratory protective equipment.
Skin and body protection	Must wear anti static chemical protective clothing and anti static shoes.

9 Physical and chemical properties and safety characteristics

Physical and chemical properties

Appearance (physical state, color, etc.)	Colorless to light yellow liquid
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	-95 (N-hexane)
Initial boiling point and boiling range(°C)	69 (N-hexane)
Flash point(Closed cup,°C)	-22 (N-hexane)
Evaporation rate	No information available
Flammability	No information available
Upper/lower explosive limits[%(v/v)]	Upper limit : 7.5 (N-hexane); Lower limit : 1.1 (N-hexane)
Vapor pressure	17kPa (20°C,N-hexane)
Vapor density(Air = 1)	3.0 (N-hexane)
Relative density(Water=1)	0.66~0.68 (20 °C,N-hexane)
Solubility	Insoluble in water (N-hexane)
n-octanol/water partition coefficient	3.9 (N-hexane)
Auto-ignition temperature(°C)	225 (N-hexane)
Decomposition temperature(°C)	No information available
Kinematic viscosity	No information available

10 Stability and reactivity

Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	In contact with an open flame may cause a fire or explosion.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Oxidantss and halogen.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

Acute toxicity

Component	LD_{50}(oral)	LD_{50}(dermal)	LC_{50}(inhalation,4h)
Diphenyl phthalate	8000mg/kg(Rat)	No information available	No information available
Dimethyl phthalate	8200mg/kg(Rat)	> 23800mg/kg(Rabbit)	No information available
Dinonyl phthalate	21500mg/kg(Mouse)	No information available	No information available
Bis(2-butoxyethyl) phthalate	8380mg/kg(Rat)	No information available	No information available
Didecyl phthalate	> 61800mg/kg(Rat)	16200mg/kg(Rabbit)	No information available
N-hexane	25000mg/kg(Rat)	No information available	169.188mg/L(Rat)
Dihexyl phthalate	29600mg/kg(Rat)	No information available	No information available
Benzyl butyl phthalate	2330mg/kg(Rat)	> 10000mg/kg(Rabbit)	No information available
Dicyclohexyl phthalate	34400mg/kg(Rat)	No information available	No information available
Bis(2-ethylhexyl) phthalate	30000mg/kg(Rat)	25000mg/kg(Rabbit)	No information available
Dioctyl phthalate	47000mg/kg(Rat)	No information available	No information available
Diallyl phthalate	656mg/kg(Rat)	3300mg/kg(Rabbit)	No information available
Bis(2-methoxyethyl) phthalate	3200mg/kg(Mouse)	No information available	No information available
Diisobutyl phthalate	15000mg/kg(Rat)	No information available	No information available
Diethyl phthalate	8600mg/kg(Rat)	No information available	No information available
Dibutyl phthalate	7499mg/kg(Rat)	> 20900mg/kg(Rabbit)	No information available

Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP	OSHA Carcinogen List
Dimethyl phthalate	Not Listed	Not Listed	Not Listed
Diethyl phthalate	Not Listed	Not Listed	Not Listed
Diisopropyl phthalate	Not Listed	Not Listed	Not Listed
Diallyl phthalate	Not Listed	Not Listed	Not Listed
Dipropyl phthalate	Not Listed	Not Listed	Not Listed
Diisobutyl phthalate	Not Listed	Not Listed	Not Listed
Dibutyl phthalate	Not Listed	Not Listed	Not Listed
Bis(2-methoxyethyl) phthalate	Not Listed	Not Listed	Not Listed
Bis(4-methyl-2-pentyl) phthalate	Not Listed	Not Listed	Not Listed
Bis(2-ethoxyethyl) phthalate	Not Listed	Not Listed	Not Listed
Dipentyl phthalate	Not Listed	Not Listed	Not Listed
Diisopentyl phthalate	Not Listed	Not Listed	Not Listed
1,2-Benzenedicarboxylic	Not Listed	Not Listed	Not Listed

acid, dipentyl ester, branched and linear			
Dihexyl phthalate	Not Listed	Not Listed	Not Listed
Benzyl butyl phthalate	Category 3	Not Listed	Not Listed
Bis(2-butoxyethyl) phthalate	Not Listed	Not Listed	Not Listed
Dicyclohexyl phthalate	Not Listed	Not Listed	Not Listed
Diheptyl phthalate	Not Listed	Not Listed	Not Listed
Bis(2-ethylhexyl) phthalate	Category 2B	Category R	Not Listed
Diphenyl phthalate	Not Listed	Not Listed	Not Listed
Dioctyl phthalate	Not Listed	Not Listed	Not Listed
Dibenzyl phthalate	Not Listed	Not Listed	Not Listed
Dinonyl phthalate	Not Listed	Not Listed	Not Listed
Didecyl phthalate	Not Listed	Not Listed	Not Listed
N-hexane	Not Listed	Not Listed	Not Listed

Others

24 Mix phthalates in methanol	
Skin corrosion/irritation	Causes skin irritation(Category 2)
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	May cause an allergic skin reaction(Category 1)
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	May damage fertility and the unborn child(Category 1B)
STOT-single exposure	May cause drowsiness or dizziness(Category 3)
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure(nervous system)(Category 1)
Aspiration hazard	May be fatal if swallowed and enters airways(Category 1)
Germ cell mutagenicity	Based on available data, the classification criteria are not met

12 Ecological information

Acute aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
Diisobutyl phthalate	LC_{50} : 3.0mg/L (96h)(Fish)	EC_{50} : 6.7mg/L (48h)(Crustaceans)	ErC_{50} : 1.8mg/L (72h)(Algae)
Dimethyl phthalate	LC_{50} : 39mg/L (96h)(Fish)	EC_{50} : 45.9mg/L (48h)(Crustaceans)	ErC_{50} : 35.8mg/L (96h)(Algae)
Diethyl phthalate	LC_{50} : 12mg/L (96h)(Fish)	EC_{50} : 86mg/L (48h)(Crustaceans)	ErC_{50} : 45.2mg/L (96h)(Algae)
Dibutyl phthalate	LC_{50} : 1.51mg/L (96h)(Fish)	EC_{50} : 2.99mg/L (48h)(Crustaceans)	ErC_{50} : 0.4mg/L (96h)(Algae)
Diheptyl phthalate	LC_{50} :>93mg/L (96h)(Fish)	EC_{50} : 0.37mg/L (48h)(Crustaceans)	ErC_{50} : >1000mg/L (72h)(Algae)
N-hexane	LC_{50} : 57.8mg/L	No information available	No information available

	(96h)(Fish)		
Benzyl butyl phthalate	LC_{50} : >1.1mg/L (96h)(Fish)	EC_{50} : 1.8mg/L (48h)(Crustaceans)	ErC_{50} : 0.11mg/L (96h)(Algae)
Bis(2-ethylhexyl) phthalate	LC_{50} : 75mg/L (96h)(Fish)	EC_{50} : >100mg/L (48h)(Crustaceans)	ErC_{50} : >100mg/L (72h)(Algae)
Dicyclohexyl phthalate	LC_{50} : 2mg/L (96h)(Fish)	EC_{50} : >2.0mg/L (48h)(Crustaceans)	ErC_{50} : >2.0mg/L (72h)(Algae)
Diallyl phthalate	LC_{50} : 0.23mg/L (96h)(Fish)	EC_{50} : 5.5mg/L (48h)(Crustaceans)	ErC_{50} : 4.5mg/L (96h)(Algae)
Dioctyl phthalate	LC_{50} :>20mg/L (96h)(Fish)	EC_{50} : >0.00067mg/L (48h)(Crustaceans)	ErC_{50} : >20mg/L (72h)(Algae)

Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
Diisobutyl phthalate	NOEC : 0.39mg/L(Fish)	NOEC : 0.27mg/L(Crustaceans)	NOEC : 0.37mg/L(Algae)
Dibutyl phthalate	NOEC : 1.1mg/L(Fish)	NOEC : 0.33mg/L(Crustaceans)	NOEC : 0.3mg/L(Algae)
Diheptyl phthalate	No information available	NOEC : 0.04mg/L(Crustaceans)	NOEC : 1000mg/L(Algae)
Benzyl butyl phthalate	No information available	NOEC : 0.52mg/L(Crustaceans)	No information available
Bis(2-ethylhexyl) phthalate	No information available	NOEC : 10mg/L(Crustaceans)	NOEC : 100mg/L(Algae)
Dicyclohexyl phthalate	No information available	NOEC : 0.18mg/L(Crustaceans)	NOEC : 2.0mg/L(Algae)
Diallyl phthalate	No information available	NOEC : 4.3mg/L(Crustaceans)	NOEC : 2.4mg/L(Algae)
Dioctyl phthalate	No information available	NOEC : >0.00061mg/L(Crustaceans)	NOEC : 20mg/L(Algae)

Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Dimethyl phthalate	Low(Half-life = 14 days)	Low(Half-life = 46.58 days)
Diethyl phthalate	Media(Half-life = 112 days)	Low(Half-life = 8.83 days)
Diallyl phthalate	Low	Low
Dipropyl phthalate	Low	Low
Diisobutyl phthalate	Low	Low
Bis(2-methoxyethyl) phthalate	Low	Low
Dipentyl phthalate	Low	Low
Dihexyl phthalate	Low	Low
Benzyl butyl phthalate	High(Half-life = 180 days)	Low(Half-life = 2.5 days)
Bis(2-butoxyethyl) phthalate	Low	Low
Dicyclohexyl phthalate	High	High

Bis(2-ethylhexyl) phthalate	High(Half-life = 389 days)	Low(Half-life = 1.21 days)
Dioctyl phthalate	High(Half-life = 365 days)	Low(Half-life = 1.87 days)
Dibenzyl phthalate	High	High
Dinonyl phthalate	Low	Low
Didecyl phthalate	Low	Low
N-hexane	Low	Low

Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Dimethyl phthalate	Low	BCF=57
Diethyl phthalate	Low	BCF=117
Diallyl phthalate	Low	Log Kow=3.23
Dipropyl phthalate	Low	Log Kow=3.27
Diisobutyl phthalate	Medium	BCF=780
Bis(2-methoxyethyl) phthalate	Low	Log Kow=1.1146
Dipentyl phthalate	High	Log Kow=5.62
Dihexyl phthalate	High	Log Kow=6.82
Benzyl butyl phthalate	Medium	BCF=663
Bis(2-butoxyethyl) phthalate	Medium	Log Kow=4.0612
Dicyclohexyl phthalate	High	Log Kow=5.6
Bis(2-ethylhexyl) phthalate	High	BCF=24500
Dioctyl phthalate	Low	Log Kow=8.1
Dibenzyl phthalate	High	Log Kow=5.079
Dinonyl phthalate	Low	Log Kow=9.521
Didecyl phthalate	Low	Log Kow=10.5032
N-hexane	Medium	Log Kow=3.9

Mobility in soil

Component	log Koc	Remark
Dimethyl phthalate	1.569	
Diethyl phthalate	2.34	20 ℃
Diallyl phthalate	2.63	20 ℃
Dipropyl phthalate	2.633	
Diisobutyl phthalate	3.06	20 ℃
Dibutyl phthalate	3.14	
Bis(2-methoxyethyl) phthalate	1.000	

Dipentyl phthalate	3.696	
Dihexyl phthalate	4.228	
Benzyl butyl phthalate	3.971	
Bis(2-butoxyethyl) phthalate	2.231	
Dicyclohexyl phthalate	3.46	20 ℃
Bis(2-ethylhexyl) phthalate	5.219	
Dioctyl phthalate	5.291	
Dibenzyl phthalate	4.778	
Dinonyl phthalate	5.823	
Didecyl phthalate	6.354	
N-hexane	≥2.37 - ≤3.16	20 ℃， pH=7.0

13 Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label and Mark

Transporting Label	

IMDG-CODE

UN number	1208
UN proper shipping name	HEXANES
Transport hazard class	3
Transport subsidiary hazard class	None
Packing group	Ⅱ
Marine pollutant (Yes or no)	Yes

IATA-DGR

UN number	1208
UN proper shipping name	HEXANES
Transport hazard class	3
Transport subsidiary hazard class	None

Packing group	Ⅱ

UN-ADR

UN number	1208
UN proper shipping name	HEXANES
Transport hazard class	3
Transport subsidiary hazard class	None
Packing group	Ⅱ

Transport in bulk according to IMO instruments

◆Transport in bulk according to Annex II of MARPOL and the IBC code

Not Available

◆Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Not Available

◆Transport in bulk in accordance with the IGC Code

Not Available

Others

Precautions for transport	Shipment of the goods vehicle exhaust pipe must be equipped with fire retardant devices, prohibit using mechanical equipment and tools of which easy to produce sparks. Transit should be anti-exposure, anti-rain, anti-high temperature. Transportation used tank (tank) cars should be grounded chain, tank can be installed to reduce the partition hole static electricity shocks. Strictly prohibited shipping or transportation with oxidants, acids, food and food additives etc. When bulk transport, Prohibit the use of cement or wooden boats. Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.

15 Regulatory information

International chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M
Dimethyl phthalate	√	√	√	√	√	√	√	√	√	√	√	√	√
Diethyl phthalate	√	√	√	√	√	√	√	√	√	√	√	√	√
Diisopropyl phthalate	√	√	√	×	×	×	×	×	×	×	×	√	√
Diallyl phthalate	√	√	√	√	√	√	√	√	√	√	√	√	√
Dipropyl phthalate	√	√	√	√	√	×	√	×	√	×	×	√	√
Diisobutyl phthalate	√	√	√	√	√	√	√	√	√	√	√	√	√
Dibutyl phthalate	√	√	√	√	√	√	√	√	√	√	√	√	√
Bis(2-methoxyethyl) phthalate	√	√	√	√	×	×	×	√	√	×	×	√	√
Bis(4-methyl-2-pentyl) phthalate	×	×	×	×	×	×	×	×	√	×	×	√	√

Bis(2-ethoxyethyl) phthalate	×	√	√	×	×	×	×	×	×	×	×	√	√
Dipentyl phthalate	√	√	√	√	√	×	√	×	×	×	×	√	√
Diisopentyl phthalate	×	√	×	×	×	×	×	×	×	×	×	√	√
1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	√	√	×	×	×	×	×	×	×	×	×	√	×
Dihexyl phthalate	√	√	√	√	√	×	√	√	√	×	×	√	√
Benzyl butyl phthalate	√	√	√	√	√	√	√	√	√	√	√	√	√
Bis(2-butoxyethyl) phthalate	√	√	√	√	√	√	√	√	√	×	×	√	√
Dicyclohexyl phthalate	√	√	√	√	√	√	√	√	√	√	√	√	√
Diheptyl phthalate	×	√	√	×	×	√	√	√	√	×	×	√	√
Bis(2-ethylhexyl) phthalate	√	√	√	√	√	√	√	√	√	√	√	√	√
Diphenyl phthalate	×	√	√	×	×	×	√	√	√	×	×	√	√
Dioctyl phthalate	√	√	√	√	√	√	√	√	√	√	√	√	√
Dibenzyl phthalate	√	√	×	√	√	√	×	√	×	×	×	√	√
Dinonyl phthalate	√	√	√	√	√	×	√	√	√	×	×	√	√
Didecyl phthalate	√	√	√	×	√	√	×	√	√	×	×	√	√
N-hexane	√	√	√	√	√	√	√	√	√	√	√	√	√

【A】 China Inventory of Existing Chemical Substances(IECSC)
【B】 European Inventory of Existing Commercial Chemical Substances(EC inventory)
【C】 United States Toxic Substances Control Act Inventory(TSCA)
【D】 Canadian Domestic Substances List(DSL)
【E】 New Zealand Inventory of Chemicals(NZIoC)
【F】 Philippines Inventory of Chemicals and Chemical Substances(PICCS)
【G】 Korea Existing Chemicals Inventory(KECL)
【H】 Australian. Inventory of Industrial Chemical (AIICS)
【I】 Japan Inventory of Existing & New Chemical Substances(ENCS)
【J】 Thailand Existing Chemicals Inventory(TECI)
【K】 Mexico National Inventory of Chemical Substances (INSQ)
【L】 Russia Inventory of Existing Substances (DRAFT)
【M】 Inventory of Existing Chemical Substances in Taiwan, China (TCSI)

List of Chemical Substances under International Conventions

Component	A	B	C
Dimethyl phthalate	×	×	×
Diethyl phthalate	×	×	×
Diisopropyl phthalate	×	×	×
Diallyl phthalate	×	×	×
Dipropyl phthalate	×	×	×
Diisobutyl phthalate	×	×	×
Dibutyl phthalate	×	×	×
Bis(2-methoxyethyl) phthalate	×	×	×
Bis(4-methyl-2-pentyl)	×	×	×

phthalate			
Bis(2-ethoxyethyl) phthalate	×	×	×
Dipentyl phthalate	×	×	×
Diisopentyl phthalate	×	×	×
1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	×	×	×
Dihexyl phthalate	×	×	×
Benzyl butyl phthalate	×	×	×
Bis(2-butoxyethyl) phthalate	×	×	×
Dicyclohexyl phthalate	×	×	×
Diheptyl phthalate	×	×	×
Bis(2-ethylhexyl) phthalate	×	×	×
Diphenyl phthalate	×	×	×
Dioctyl phthalate	×	×	×
Dibenzyl phthalate	×	×	×
Dinonyl phthalate	×	×	×
Didecyl phthalate	×	×	×
N-hexane	×	×	×

【A】 The Montreal Protocol on Substances that Deplete the Ozone Layer
【B】 Stockholm Convention on Persistent Organic Pollutants (POPs)
【C】 Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade

US chemical inventory

Component	A	B	C	D	E	F	G	H
Dimethyl phthalate	√	√	√	√	√	√	√	×
Diethyl phthalate	×	×	√	√	√	√	√	×
Diisopropyl phthalate	×	×	×	×	×	×	×	×
Diallyl phthalate	×	×	×	√	×	√	×	×
Dipropyl phthalate	×	×	×	×	×	×	×	×
Diisobutyl phthalate	×	×	×	×	×	×	×	×
Dibutyl phthalate	√	√	√	√	√	√	√	√
Bis(2-methoxyethyl) phthalate	×	×	×	×	×	×	×	×
Bis(4-methyl-2-pentyl) phthalate	×	×	×	×	×	×	×	×
Bis(2-ethoxyethyl) phthalate	×	×	×	×	×	×	×	×
Dipentyl phthalate	×	×	×	×	×	×	×	×
Diisopentyl phthalate	×	×	×	×	×	×	×	×
1,2-Benzenedicarboxylic acid, dipentyl ester,	×	×	×	×	×	×	×	×

branched and linear								
Dihexyl phthalate	×	×	×	×	×	×	×	√
Benzyl butyl phthalate	×	×	√	√	√	√	√	√
Bis(2-butoxyethyl) phthalate	×	×	×	×	×	×	×	×
Dicyclohexyl phthalate	×	×	×	×	×	×	×	×
Diheptyl phthalate	×	×	×	×	×	×	×	×
Bis(2-ethylhexyl) phthalate	√	×	√	√	√	√	√	√
Diphenyl phthalate	×	×	×	×	×	×	×	×
Dioctyl phthalate	×	√	√	√	√	√	√	×
Dibenzyl phthalate	×	×	×	×	×	×	×	×
Dinonyl phthalate	×	×	×	×	×	×	×	×
Didecyl phthalate	×	×	×	×	×	×	×	×
N-hexane	√	×	√	√	√	√	√	√

[A] US Clean Air Act (CAA)- Section 112, Hazardous Air Pollutants
[B] US SARA 302- Extremely Hazardous Substance List
[C] US CERCLA- Hazardous Substances List
[D] US Massachusetts Right-to-Know Substance List
[E] US New Jersey Right to Know Hazardous Substance List
[F] US Pennsylvania Right to Know Hazardous Substance List
[G] US New York City Right-to-Know Hazardous Substance List
[H] US California Proposition 65 List

Note:
"√" Indicates that the substance included in the regulations.
"×" No data or not included in the regulations.

16 Other information

Information on revision

Creation Date	2025/10/10
Revision Date	-
Reason for revision	-

Reference

[1] IPCS: The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home.
[2] IARC, website: http://www.iarc.fr/.
[3] OECD: The Global Portal to Information on Chemical Substances, website: https://www.echemportal.org/echemportal/.
[4] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple.
[5] NLM: ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp.
[6] EPA: Integrated Risk Information System, website: http://cfpub.epa.gov/iris/.
[7] U.S. Department of Transportation: ERG, website: http://www.phmsa.dot.gov/hazmat/library/erg.
[8] Germany GESTIS-database on hazard substance, website: http://gestis-en.itrust.de/.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer

DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC_{50}	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD_{50}	Lethal Dose 50%	NTP	National Toxicology Program
EC_{50}	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC_X	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P_{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor	HCS	Hazard Communication Standard

Disclaimer

This Safety Data Sheet (SDS) was prepared according to OSHA HCS-2024. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.