Date of issue: 25/04/2016
Date of revision: 28/06/2021

Safety Data Sheet

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

Product identifier:
- Product name: Di-2-ethylhexyl phthalate
- SDS No. : 2382E-3

Details of the supplier of the safety data sheet
- Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.
- Address: 3-1, Honmachibashi, Chuo-ku,Osaka ,JAPAN
- Division: Safety Management Dept. of Chemicals
- Telephone number: +81-6-6946-8061
- FAX: +81-6-6946-1607
- e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS
- Serious eye damage/eye irritation: Category 2B
- Carcinogenicity: Category 2
- Reproductive toxicity: Category 1B
- Reproductive toxicity - effects on or via lactation: Additional category
- Specific target organ toxicity - single exposure: Category 3 (Respiratory tract irritation)
- Specific target organ toxicity - repeated exposure: Category 2(liver; testis)

ENVIRONMENT HAZARDS
- Hazardous to the aquatic environment (Acute): Category 1
- Hazardous to the aquatic environment (Long-term): Category 2

Label elements

Signal word: Danger

HAZARD STATEMENT
- Causes eye irritation
- Suspected of causing cancer
- May damage fertility or the unborn child
- May cause harm to breast-fed children
- May cause respiratory irritation
- May cause damage to organs through prolonged or repeated exposure(liver; testis)
- Very toxic to aquatic life
- Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention
- Avoid release to the environment.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Use only outdoors or in a well-ventilated area.
- Wash contaminated parts thoroughly after handling.
- Do not eat, drink or smoke when using this product.

Response

Collect spillage.
Get medical advice/attention if you feel unwell.
IF exposed or concerned: Get medical advice/attention.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Storage

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

Disposal

Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name:Di-2-ethylhexylphthalate
Content (%):98(min)
Chemical formula:C6H4[COOCH2CH(C2H5)(CH2)3CH3]2
Chemicals No, Japan:3-1307
CAS No.:117-81-7
MW:390.56
ECNO:204-211-0

Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical attention/advice if you feel unwell.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth.
Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use foam, dry powder, CO2 to extinguish.

Unsuitable extinguishing media

Indoor firefighting equipment or outdoor firefighting equipment
Sprinkler equipment
Dry-powder firefighting equipment - except for phosphate etc.,hydrogen carbonate etc.

Straight stream water extinguisher
Water mist extinguisher
Reinforcing liquid jet extinguisher
Dry-powder extinguisher - except for phosphate etc.,hydrogen carbonate etc.
Bucket of water or tank of water

Specific hazards arising from the substance or mixture

Containers may explode when heated.
Fire may produce irritating, corrosive and/or toxic gases.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.
Wear protective gloves/protective clothing/eye protection/face protection.
Firefighters should wear self-contained breathing apparatus with full face peace operated positive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.
Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

Preventive measures for secondary accident

Collect spillage.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

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

(Protective measures against fire and explosion)

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

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.
Avoid contact with eyes.

Safety Measures

Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing or face protection.
When using do not eat, drink or smoke.

Any incompatibilities

See "10.Stability and Reactivity"

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.
Do not eat, drink or smoke when using this product.

Storage

Conditions for safe storage

Keep container tightly closed.
Store in a cool, dry place. Do not store in direct sunlight.
Container and packaging materials for safe handling
Glass
Metals

8. Exposure controls/personal protection

Control parameters
Adopted value
(Di-2-ethylhexylphthalate)
ACGIH(1996) TWA: (5mg/m3) (LRT irr)
OSHA-PEL
(Di-2-ethylhexylphthalate)
TWA: 5mg/m3
Exposure controls
Appropriate engineering controls
Do not use in areas without adequate ventilation.
Eye wash station should be available.
Washing facilities should be available.
Individual protection measures
Respiratory protection
Wear respiratory protection.
Hand protection
Wear protective gloves.
Eye protection
Wear eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties
Physical state: Liquid
Color: Colorless, clear
Odor: Practically odorless to characteristic odor
Melting point/Freezing point: -50℃
Boiling point or initial boiling point: (Di-2-ethylhexylphthalate)385℃
Boiling range data is not available.
Flammability (gases, liquids and solids) data is not available.
Lower and upper explosion limit/flammability limit data is not available.
Flash point: (Di-2-ethylhexylphthalate)(O.C.) 215℃
Auto-ignition temperature: (Di-2-ethylhexylphthalate)350℃
Decomposition temperature data is not available.
pH data is not available.
Kinematic viscosity data is not available.
Solubility:
Solubility in water: None
n-Octanol/water partition coefficient: log Pow5.03
Vapor pressure: 0.001 kPa (20℃)
Density and/or relative density: 0.99
Relative vapor density (Air=1): 13.45
No Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Decomposes on heating. This produces irritating fumes. Reacts with strong oxidants, acids, alkalis and nitrates. (ICSC 0271)

Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

Incompatible materials

Acids, Bases, Strong oxidizing agents, Nitrates

Hazardous decomposition products

Carbon oxides

11. Toxicological Information

Information on toxicological effects

Acute toxicity data is not available.

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation

[GHS Cat. Japan, base data]

(Di-2-ethylhexylphthalate)

rabbit mild conjunctival redness (EU-RAR, 2003)

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenicity

[GHS Cat. Japan, base data]

(Di-2-ethylhexylphthalate)

cat.2; IARC Gr. 2B (IARC, 2013)

(Di-2-ethylhexylphthalate)

IARC-Gr.2B : Possibly carcinogenic to humans

(Di-2-ethylhexylphthalate)

ACGIH-A3(1996) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

Reproductive toxicity

[GHS Cat. Japan, base data]

(Di-2-ethylhexylphthalate)

cat. 1B; EU-RAR, 2008

(Di-2-ethylhexylphthalate)

cat. add; EU-RAR, 2008

STOT

STOT-single exposure

[cat.3 (resp. irrit.)]

[GHS Cat. Japan, base data]

(Di-2-ethylhexylphthalate)

respiratory tract irritation (HSDB, 2014)

STOT-repeated exposure

[cat.2]

[GHS Cat. Japan, base data]

(Di-2-ethylhexylphthalate)

liver; testis (ATSDR, 2002; EU-RAR, 2008)

Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Very toxic to aquatic life

Toxic to aquatic life with long lasting effects

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

(Di-2-ethylhexylphthalate)

Crustacea (Daphnia magna) EC50=0.133mg/L/48hr (MOE Japan, 2002)

Hazardous to the aquatic environment (Long-term)

[GHS Cat. Japan, base data]

(Di-2-ethylhexylphthalate)

Crustacea (Daphnia magna) NOEC=0.077mg/L/21days (MOE Japan, 2002)

Water solubility

(Di-2-ethylhexylphthalate)

0.000003 g/100 ml (EU-RAR, 2001)

Persistence and degradability

(Di-2-ethylhexylphthalate)

Degrade rapidly (BOD_Degradation : 69%/28 days (Registered chemicals data check & review, 1975)

Bioaccumulative potential

(Di-2-ethylhexylphthalate)

log Pow=5.03 (ICSC, 2001); BCF=29.7 (Check & Review, Japan)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Avoid release to the environment (– if this is not the intended use).

Dispose of contents/container in accordance with local/national regulation.

14. Transport Information

UN No. or ID No.: 3082

UN Proper Shipping Name :

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Class or division (Transport hazard class) : 9

Packing group : III

ERG GUIDE No.: 171

Special provisions No.: 274; 331; 335; 375

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 3082

Proper Shipping Name :

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Class or division : 9

Packing group : III

Special provisions No.: 274; 335; 969

IATA Dangerous Goods Regulations

UN No.: 3082

Proper Shipping Name :

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Class or division : 9

Hazard labels : Miscellaneous & Environmentally hazardous

Packing group : III

Special provisions No.: A97; A158; A197; A215

Environmental hazards

MARPOL Annex III - Prevention of pollution by harmful substances

Marine pollutants (yes/no) : yes

MARPOL Annex V - Prevention of pollution by garbage discharge

Reproductive toxicity: cat.1, 1A, 1B

Di-2-ethylhexylphthalate

Hazardous to the aquatic environment - acute hazard: cat.1

Di-2-ethylhexylphthalate

Hazardous to the aquatic environment - long-term hazard: cat.1, 2

Di-2-ethylhexylphthalate

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemicals listed in TSCA Inventory

Di-2-ethylhexylphthalate

Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

GHS classification and labelling

Eye Irrit. 2B: H320 Causes eye irritation

Carc. 2: H351 Suspected of causing cancer

Repr. 1B: H360 May damage fertility or the unborn child

Lact.: H362 May cause harm to breast-fed children

STOT SE 3: H335 May cause respiratory irritation

STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure

Aquatic Acute 1: H400 Very toxic to aquatic life

Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN

IMDG Code, 2018 Edition (Incorporating Amendment 39-18)

IATA Dangerous Goods Regulations (62nd Edition) 2021

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2020 TLVs and BEIs. (ACGIH)

Supplier's data/information

General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this

Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.
The GHS classification data given here is based on current Japan official data (NITE published in 2019).