Safety Data Sheet

12 Mix of nitrophenol in dichloromethane

Version：V2.0.0.1
Report No.：BWQ9344-2016-MSDS-EP
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*Prepared in accordance with EU REACH Regulation (REACH 1907/2006 with amendment 2020/878)

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

1.1 Product identifier

Product Name	12 Mix of nitrophenol in dichloromethane
Cat No.	BWQ9344-2016
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable
REACH Registration Number	-
UFI	No information available

1.2 Relevant identified uses of the substance or mixture and uses advised against

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

1.3 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

1.4 Emergency telephone number

Emergency telephone number	010-58103678
Opening hours	24h

2 Hazards identification

2.1 CLP classification according to Regulation (EC) No. 1272/2008 with amendment 2023/707

Carcinogenicity	Category 2

2.2 Label elements

Hazard pictograms	

Signal word	Warning

Hazard statements

H351	Suspected of causing cancer

Precautionary statements

◆ Prevention

P201	Obtain special instructionsbefore use.
P202	Do not handle until allsafety precautions havebeen read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

◆ Response

P308+P313	IF exposed or concerned: Get medical advice/attention.

◆ Storage

P405	Store locked up.

◆ Disposal

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

2.3 Other hazards

◆ Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Dichloromethane	Not PBT/vPvB
2-nitrophenol	Insufficient information, temporarily unable to evaluate
2-nitro-m-cresol	Insufficient information, temporarily unable to evaluate
2-nitro-p-cresol	Insufficient information, temporarily unable to evaluate
6-nitro-m-cresol	Insufficient information, temporarily unable to evaluate
2,5-dinitrophenol	Insufficient information, temporarily unable to evaluate
3-nitrophenol	Insufficient information, temporarily unable to evaluate
2,4-dinitrophenol	Not PBT/vPvB
2,6-dinitrophenol	Insufficient information, temporarily unable to evaluate
4-nitrophenol	Insufficient information, temporarily unable to evaluate
4-nitro-m-cresol	Insufficient information, temporarily unable to evaluate
2-methyl-4,6-dinitro-phenol	Insufficient information, temporarily unable to evaluate
4-nitro-2,6-xylenol	Insufficient information, temporarily unable to evaluate

◆ Results of endocrine disrupting properties assessment

Component	Results of endocrine disrupting properties assessment [according to (EU) No 2017/2100 or (EU) No 2018/605]
Dichloromethane	Insufficient information, temporarily unable to evaluate
2-nitrophenol	Insufficient information, temporarily unable to evaluate
2-nitro-m-cresol	Insufficient information, temporarily unable to evaluate

2-nitro-p-cresol	Insufficient information, temporarily unable to evaluate
6-nitro-m-cresol	Insufficient information, temporarily unable to evaluate
2,5-dinitrophenol	Insufficient information, temporarily unable to evaluate
3-nitrophenol	Insufficient information, temporarily unable to evaluate
2,4-dinitrophenol	Insufficient information, temporarily unable to evaluate
2,6-dinitrophenol	Insufficient information, temporarily unable to evaluate
4-nitrophenol	Insufficient information, temporarily unable to evaluate
4-nitro-m-cresol	Insufficient information, temporarily unable to evaluate
2-methyl-4,6-dinitro-phenol	Insufficient information, temporarily unable to evaluate
4-nitro-2,6-xylenol	Insufficient information, temporarily unable to evaluate

◆ Other

	Not applicable.

3 Composition/information on ingredients

3.1 Substance

	Not applicable

3.2 Mixture

Component	Weight % content(or range)	Classification according to Regulation (EC) No. 1272/2008 with amendment 2023/707 [CLP]	Specific Conc. Limits, M-factors
Dichloromethane CAS : 75-09-2 EC : 200-838-9 Index No. : 602-004-00-3	99.82	Carcinogenicity, Category 2, H351	-
2-nitrophenol CAS : 88-75-5 EC : 201-857-5 Index No. : -	0.015	Acute Toxicity - Oral, Category 4, H302; Acute Toxicity - Dermal, Category 4, H312; Acute Toxicity - Inhalation, Category 4, H332; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410	-
2-nitro-m-cresol CAS : 4920-77-8 EC : 225-546-9 Index No. : -	0.015	Acute Toxicity - Oral, Category 4, H302; Acute Toxicity - Dermal, Category 4, H312; Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Acute Toxicity - Inhalation, Category 4, H332; Specific target organ toxicity - single exposure; respiratory tract irritation, Category 3, H335	-
2-nitro-p-cresol CAS : 119-33-5 EC : 204-315-6 Index No. : -	0.015	Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Specific target organ toxicity - single exposure; respiratory tract irritation, Category 3, H335	-
6-nitro-m-cresol CAS : 700-38-9 EC : 211-843-0 Index No. : -	0.015	Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Specific target organ toxicity - single exposure; respiratory tract	-

		irritation, Category 3, H335	
2,5-dinitrophenol CAS : 329-71-5 EC : 206-348-1 Index No. : 609-054-00-5	0.015	Acute Toxicity - Oral, Category 3, H301; Acute Toxicity - Dermal, Category 3, H311; Acute Toxicity - Inhalation, Category 3, H331; Specific target organ toxicity - repeated exposure, Category 2, H373; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
3-nitrophenol CAS : 554-84-7 EC : 209-073-5 Index No. : -	0.015	Acute Toxicity - Oral, Category 4, H302; Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 1, H318	-
2,4-dinitrophenol CAS : 51-28-5 EC : 200-087-7 Index No. : 609-041-00-4	0.015	Acute Toxicity - Oral, Category 2, H300; Acute Toxicity - Dermal, Category 3, H311; Acute Toxicity - Inhalation, Category 3, H331; Specific target organ toxicity - repeated exposure, Category 1, H372; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400	H3002:ATE=30 mg/kg bw|H331:ATE=300 mg/kg bw
2,6-dinitrophenol CAS : 573-56-8 EC : 209-357-9 Index No. : 609-054-00-5	0.015	Acute Toxicity - Oral, Category 3, H301; Acute Toxicity - Dermal, Category 3, H311; Acute Toxicity - Inhalation, Category 3, H331; Specific target organ toxicity - repeated exposure, Category 2, H373; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 2, H411	-
4-nitrophenol CAS : 100-02-7 EC : 202-811-7 Index No. : 609-015-00-2	0.015	Acute Toxicity - Oral, Category 4, H302; Acute Toxicity - Dermal, Category 4, H312; Acute Toxicity - Inhalation, Category 4, H332; Specific target organ toxicity - repeated exposure, Category 2, H373	-
4-nitro-m-cresol CAS : 2581-34-2 EC : 219-952-5 Index No. : -	0.015	Acute Toxicity - Oral, Category 4, H302; Acute Toxicity - Dermal, Category 4, H312; Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Acute Toxicity - Inhalation, Category 4, H332; Specific target organ toxicity - single exposure; respiratory tract irritation, Category 3, H335	-
2-methyl-4,6-dinitro-phenol CAS : 534-52-1 EC : 208-601-1 Index No. : 609-020-00-X	0.015	Acute Toxicity - Oral, Category 2, H300; Acute Toxicity - Dermal, Category 1, H310; Skin Corrosion/Irritation, Category 2, H315; Sensitization - skin, Category 1, H317; Serious eye damage/irritation, Category 1, H318; Acute Toxicity - Inhalation, Category 2, H330; Germ cell mutagenicity, Category 2, H341; Hazardous to the aquatic environment - short-term (acute) hazard, Category 1, H400; Hazardous to the aquatic environment - long-term (chronic) hazard, Category 1, H410; Risk of explosion if heated under confinement, EUH044	-
4-nitro-2,6-xylenol CAS : 2423-71-4 EC : 219-353-9 Index No. : -	0.015	Skin Corrosion/Irritation, Category 2, H315; Serious eye damage/irritation, Category 2, H319; Specific target organ toxicity - single exposure; respiratory tract	-

		irritation, Category 3, H335	

4 First-aid measures

4.1 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.
Ingestion	Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink. Rest.
Inhalation	Fresh air, rest. Artificial respiration may be needed. 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.

4.2 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.

4.3 Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used.

5.2 Specific hazards arising from the substance or mixture

1	Development of hazardous combustion gases or vapor possible in the event of fire.
2	May expansion or decompose explosively when heated or involved in fire.

5.3 Advice for firefighters

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

6.1 Personal precautions, protective equipment and emergency procedures

1	Use personal protective equipment,do not breathe gas/mist/vapour/spray.
2	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
3	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

1	Cut off the source of the leak as much as possible.
2	Keep leaks in a ventilated place.
3	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
4	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
5	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.

6.4 Reference to other sections

1	Personal Protective Equipment advice is contained in Section 8 of the SDS.
2	Disposal considerations advice is contained in Section 13 of the SDS.

7 Handling and storage

7.1 Precautions for safe handling

◆ Protective measures

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.

◆ Measures to prevent fire

1	Keep away from heat/sparks/open flames/ hot surfaces.

◆ Measures to prevent aerosol and dust generation

1	Not applicable.

◆ Advice on general occupational hygiene

1	Wash hands and face after using the substances.
2	Replace the contaminated clothing immediately.

7.2 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.

7.3 Specific end use(s)

1	In addition to use mentioned in the Section 1.2, unforeseen other specific end uses.

8 Exposure controls/personal protection

8.1 Control parameters

◆ Occupational exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m³	ppm	mg/m³
Dichloromethane	Japan - JSOH(2024–2025)	50	173	-	-

	Permissible exposure standards for workers in the workplace	50	174	75	217.5
	European Union	100	353	200	706
	France	50	178	100	356
	Germany (AGS)	50	180	100	360
	Germany (DFG)	50	180	100	360
2,4-dinitrophenol	Latvia	-	0.5	-	-
	Romania	-	0.7	-	1
2-methyl-4,6-dinitro-phenol	Permissible exposure standards for workers in the workplace	-	0.2	-	0.6
	France	-	0.2	-	-
	Austria	-	0.2(inhalable aerosol)	-	0.4(inhalable aerosol)
	Belgium	-	0.2	-	-
	Denmark	-	0.2	-	0.4
	Finland	-	0.2	-	0.6

◆ Biological limit values

Component	Standard	Biological monitoring index	Biological limits value	Sampling time	Remark
Dichloromethane	SCOEL(EU)	COHb/blood	0.04	Not strictly regulated	
		methylene chloride/urine	0.3mg/L	Not strictly regulated	
		methylene chloride/blood	1.0mg/L	Not strictly regulated	
		Dichloromethane(Urine)	0.3mg/L	End of shift	
2,4-dinitrophenol	USA -ACGIH	Methemoglobin(Hemoglobin in blood)	5%	During or end of shift	
2-methyl-4,6-dinitro-phenol	SCOEL(EU)	4,6-Dinitro-o-cresol/whole blood	10mg/L(average value)	end of shift	

◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300 and GBZ/T 160 series standard Determination of toxic substances in workplace air.

◆ Derived No effect level (DNEL)

Component	Route of exposure	DNEL for Workers			
		Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Dichloromethane	Inhalation	No data available	No data available	No data available	176 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
2-nitrophenol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
2-nitro-m-cresol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
2-nitro-p-cresol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
6-nitro-m-cresol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
2,5-dinitrophenol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
3-nitrophenol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
2,4-dinitrophenol	Inhalation	No data available	No data available	No data available	0.117 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
2,6-dinitrophenol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
4-nitrophenol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
4-nitro-m-cresol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
2-methyl-4,6-dinitro-phenol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available

	Dermal	No data available	No data available	No data available	No data available
4-nitro-2,6-xylenol	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

◆ Predicted No Effect Concentration (PNEC)

Component	A	B	C	D	E	F	G	H
Dichloromethane	130 - 310 µg/L	31 - 130 µg/L	26 mg/L	163 - 2570 µg/kg sediment dw	163 - 260 µg/kg sediment dw	No hazard identified	173 - 330 µg/kg soil dw	No potential for bioaccumulation
2,4-dinitrophenol	4 µg/L	940 ng/L	400 µg/L	4.2 µg/kg sediment dw	990 ng/kg sediment dw	No hazard identified	200 ng/kg soil dw	No potential for bioaccumulation

Note 1:

A: Freshwater; B: Seawater; C: Sewage treatment plant; D: Sediment (freshwater); E: Sediment (seawater); F: Air; G: Soil; H: Secondary poisoning(Hazard for Predators).

Note 2:

The PNEC values of the remaining components not shown in the product are not available yet.

8.2 Exposure controls

8.2.1 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.

8.2.2 Personal protection equipment

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

8.2.3 Environmental exposure controls

Environmental exposure controls	No information available

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	clear or clear yellow liquid
Colour	clear or clear yellow liquid
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	-97 (Dichloromethane)
Initial boiling point and boiling range(°C)	40 (Dichloromethane)
Flash point(Closed cup,°C)	No information available
Evaporation rate	No information available
Flammability	No information available
Upper/lower explosive limits[%(v/v)]	Upper limit : 22 (Dichloromethane); Lower limit : 13 (Dichloromethane)
Vapor pressure	47.4kPa (20°C,Dichloromethane)
Vapor density(Air = 1)	2.9 (Dichloromethane)
Relative density(Water=1)	1.3 (20°C,Dichloromethane)
Solubility	20g/l (20°C,Dichloromethane)
n-octanol/water partition coefficient	1.25 (Dichloromethane)
Auto-ignition temperature(°C)	605 (Dichloromethane)
Decomposition temperature(°C)	No information available
Kinematic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Particle characteristics	Not applicable

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Information with regard to physical hazard classes	No information available

9.2.2 Other safety characteristics

Other safety characteristics	No information available

10 Stability and reactivity

Stability and reactivity

10.1 Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
10.2 Chemical stability	Stable under proper operation and storage conditions.
10.3 Possibility of hazardous reactions	Reactions with metals form metal organic coumpounds. In contact with ammonia, strong inorganic alkalis, active metals, alkali carbonates, metal oxides or metal alkaoxides may result in an explosion.
10.4 Conditions to avoid	Incompatible materials, heat, flame and spark.
10.5 Incompatible materials	Metal, oxidantss and alkali. Ammonia, strong inorganic alkalis, active metal, alkali metal carbonates, metal oxides, metal alkaoxides, and nitric acid.
10.6 Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 with amendment 2023/707

12 Mix of nitrophenol in dichloromethane	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met

Acute toxicity

Component	LD_{50}(oral)	LD_{50}(dermal)	LC_{50}(inhalation,4h)
3-nitrophenol	328mg/kg(Rat)	No information available	No information available
Dichloromethane	1600mg/kg(Rat)	No information available	No information available
4-nitro-m-cresol	1200mg/kg(Rat)	No information available	No information available
2-nitrophenol	334mg/kg(Rat)	> 7940mg/kg(Rabbit)	No information available
4-nitrophenol	202mg/kg(Rat)	1024mg/kg(Rat)	No information available
2,4-dinitrophenol	30mg/kg(Rat)	No information available	No information available
2-nitro-p-cresol	3360mg/kg(Rat)	No information available	No information available
2-methyl-4,6-dinitro-phenol	25mg/kg(Rat)	1000mg/kg(Rabbit)	No information available

Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
Dichloromethane	Category 2A	Category R
2-nitrophenol	Not Listed	Not Listed
2-nitro-m-cresol	Not Listed	Not Listed
2-nitro-p-cresol	Not Listed	Not Listed
6-nitro-m-cresol	Not Listed	Not Listed
2,5-dinitrophenol	Not Listed	Not Listed
3-nitrophenol	Not Listed	Not Listed
2,4-dinitrophenol	Not Listed	Not Listed
2,6-dinitrophenol	Not Listed	Not Listed
4-nitrophenol	Not Listed	Not Listed
4-nitro-m-cresol	Not Listed	Not Listed
2-methyl-4,6-dinitro-phenol	Not Listed	Not Listed

4-nitro-2,6-xylenol	Not Listed	Not Listed

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Component	Endocrine disrupting properties
Dichloromethane	No information available
2-nitrophenol	No information available
2-nitro-m-cresol	No information available
2-nitro-p-cresol	No information available
6-nitro-m-cresol	No information available
2,5-dinitrophenol	No information available
3-nitrophenol	No information available
2,4-dinitrophenol	No information available
2,6-dinitrophenol	No information available
4-nitrophenol	No information available
4-nitro-m-cresol	No information available
2-methyl-4,6-dinitro-phenol	No information available
4-nitro-2,6-xylenol	No information available

11.2.2 Other Information

Other Information	See Section 11.1

12 Ecological information

12.1 Toxicity

Acute aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
2,5-dinitrophenol	LC_{50} : 3.36mg/L (96h)(Fish)	No information available	No information available
Dichloromethane	LC_{50} :193mg/L (96h)(Fish)	EC_{50} : 1470mg/L (48h)(Crustaceans)	No information available
2-nitrophenol	LC_{50} : 64mg/L (96h)(Fish)	EC_{50} : 28mg/L (48h)(Crustaceans)	ErC_{50} : 6.0mg/L (72h)(Algae)
4-nitrophenol	LC_{50} : 28mg/L (96h)(Fish)	EC_{50} : 8.04mg/L (48h)(Crustaceans)	ErC_{50} : 4.89mg/L (96h)(Algae)
2,4-dinitrophenol	LC_{50} : 0.39mg/L (96h)(Fish)	EC_{50} : 4.39mg/L (48h)(Crustaceans)	ErC_{50} : 10mg/L (96h)(Algae)
2-nitro-p-cresol	No information available	No information available	ErC_{50} : 12mg/L (96h)(Algae)
2-methyl-4,6-dinitro-phenol	LC_{50} : 1.1mg/L (96h)(Fish)	EC_{50} : 1.7mg/L (48h)(Crustaceans)	ErC_{50} : 5.6mg/L (72h)(Algae)
2,6-dinitrophenol	LC_{50} : 39.7mg/L (96h)(Fish)	No information available	No information available

Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
2-nitrophenol	No information available	No information available	NOEC : 0.92mg/L(Algae)
2-methyl-4,6-dinitro-phenol	No information available	No information available	NOEC : 0.31mg/L(Algae)

12.2 Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
2-nitrophenol	Low(Half-life = 28 days)	Low(Half-life = 2.96 days)
2-nitro-m-cresol	High	High
2-nitro-p-cresol	Low(Half-life = 49 days)	Low(Half-life = 0.67 days)
2,5-dinitrophenol	High	High
3-nitrophenol	High	High
2,6-dinitrophenol	High	High
4-nitrophenol	Low(Half-life = 9.79 days)	Low(Half-life = 6.04 days)
4-nitro-m-cresol	Low(Half-life = 49 days)	Low(Half-life = 0.67 days)

12.3 Bioaccumulative potential

Component	Bioaccumulative potential	Comments
2-nitrophenol	Low	BCF=76
2-nitro-m-cresol	Low	Log Kow=2.29
2-nitro-p-cresol	Low	BCF=13
2,5-dinitrophenol	Low	Log Kow=1.75
3-nitrophenol	Low	Log Kow=2
2,6-dinitrophenol	Low	Log Kow=1.37
4-nitrophenol	Low	BCF=280
4-nitro-m-cresol	Low	BCF=31

12.4 Mobility in soil

Component	log Koc	Remark
Dichloromethane	1.67	20 ℃
2-nitrophenol	2.499	
2-nitro-m-cresol	2.717	
2-nitro-p-cresol	2.708	
2,5-dinitrophenol	2.561	
3-nitrophenol	2.490	
2,4-dinitrophenol	1.22	20 ℃
2,6-dinitrophenol	2.570	

4-nitrophenol	2.490	
4-nitro-m-cresol	2.708	

12.5 Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Dichloromethane	Not PBT/vPvB
2-nitrophenol	Insufficient information, temporarily unable to evaluate
2-nitro-m-cresol	Insufficient information, temporarily unable to evaluate
2-nitro-p-cresol	Insufficient information, temporarily unable to evaluate
6-nitro-m-cresol	Insufficient information, temporarily unable to evaluate
2,5-dinitrophenol	Insufficient information, temporarily unable to evaluate
3-nitrophenol	Insufficient information, temporarily unable to evaluate
2,4-dinitrophenol	Not PBT/vPvB
2,6-dinitrophenol	Insufficient information, temporarily unable to evaluate
4-nitrophenol	Insufficient information, temporarily unable to evaluate
4-nitro-m-cresol	Insufficient information, temporarily unable to evaluate
2-methyl-4,6-dinitro-phenol	Insufficient information, temporarily unable to evaluate
4-nitro-2,6-xylenol	Insufficient information, temporarily unable to evaluate

12.6 Endocrine disrupting properties

Component	Endocrine disrupting properties
Dichloromethane	No information available
2-nitrophenol	No information available
2-nitro-m-cresol	No information available
2-nitro-p-cresol	No information available
6-nitro-m-cresol	No information available
2,5-dinitrophenol	No information available
3-nitrophenol	No information available
2,4-dinitrophenol	No information available
2,6-dinitrophenol	No information available
4-nitrophenol	No information available
4-nitro-m-cresol	No information available
2-methyl-4,6-dinitro-phenol	No information available
4-nitro-2,6-xylenol	No information available

12.7 Other adverse effects

	No information available

13 Disposal considerations

13.1 Waste treatment methods

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	Not applicable

IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

IATA-DGR

IATA-DGR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

UN-ADR

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Special precautions for user

	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.

Maritime 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

15 Regulatory information

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

International chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M
Dichloromethane	√	√	√	√	√	√	√	√	√	√	√	√	√
2-nitrophenol	√	√	√	√	√	√	√	√	√	×	√	√	√
2-nitro-m-cresol	√	√	×	×	×	×	×	×	√	×	×	√	√
2-nitro-p-cresol	√	√	√	×	√	×	√	√	√	×	√	√	√

6-nitro-m-cresol	×	√	×	×	×	×	×	√	√	×	×	√	√
2,5-dinitrophenol	√	√	×	×	√	×	×	×	×	×	√	√	√
3-nitrophenol	√	√	√	√	√	√	×	√	√	×	√	√	√
2,4-dinitrophenol	√	√	√	√	√	√	√	√	√	×	√	√	√
2,6-dinitrophenol	√	√	×	×	√	×	×	×	×	×	√	×	√
4-nitrophenol	√	√	√	√	√	√	√	√	√	√	√	√	√
4-nitro-m-cresol	√	√	√	×	√	√	√	√	√	×	×	√	√
2-methyl-4,6-dinitro-phenol	√	√	√	√	√	√	√	×	√	×	√	√	√
4-nitro-2,6-xylenol	×	√	×	×	√	√	×	×	×	×	×	√	√

【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
Dichloromethane	×	×	×
2-nitrophenol	×	×	×
2-nitro-m-cresol	×	×	×
2-nitro-p-cresol	×	×	×
6-nitro-m-cresol	×	×	×
2,5-dinitrophenol	×	×	×
3-nitrophenol	×	×	×
2,4-dinitrophenol	×	×	×
2,6-dinitrophenol	×	×	×
4-nitrophenol	×	×	×
4-nitro-m-cresol	×	×	×
2-methyl-4,6-dinitro-phenol	×	×	√
4-nitro-2,6-xylenol	×	×	×

【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

European chemical inventory

Component	A	B	C	D	E	F	G	H	I
Dichloromethane	×	×	√	√	√	√	√	×	×
2-nitrophenol	×	×	×	√	√	×	×	×	×
2-nitro-m-cresol	×	×	×	√	×	×	×	×	×
2-nitro-p-cresol	×	×	×	√	√	×	×	×	×
6-nitro-m-cresol	×	×	×	√	×	×	×	×	×
2,5-dinitrophenol	×	×	×	√	×	×	×	×	×
3-nitrophenol	×	×	×	√	×	×	×	×	×
2,4-dinitrophenol	×	×	×	√	√	×	×	×	×
2,6-dinitrophenol	×	×	×	√	×	×	×	×	×
4-nitrophenol	×	×	×	√	√	×	×	×	×
4-nitro-m-cresol	×	×	×	√	×	×	×	×	×
2-methyl-4,6-dinitro-phenol	×	×	×	√	√	×	×	×	×
4-nitro-2,6-xylenol	×	×	×	√	×	×	×	×	×

[A] Candidate list of Substances of Very High Concern for authorization under EU REACH regulation
[B] Substances requiring authorisation under EU REACH regulation
[C] Substances restricted under EU REACH
[D] Pre-registered substances under EU REACH
[E] Registered substances under EU REACH
[F] Substance Evaluation – CoRAP under EU REACH
[G] List of priority substances under EU water policy （Directive 2455/2001/EC）
[H] Substances subject to POPs Regulation
[I] Substances proposed as POPs

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

German water hazard class(WGK)

Component	WGK	Remark
Dichloromethane	WGK 2	
2-nitrophenol	WGK 3	
2-nitro-p-cresol	WGK 2	
4-nitrophenol	WGK 2	
4-nitro-m-cresol	WGK 3	

【WGK 1】 slightly hazardous to water
【WGK 2】 obviously hazardous to water
【WGK 3】 highly hazardous to water
【nwg】 non-hazardous to water
【awg】 hazardous to water in general

German technical instructions on air quality control(TA LUFT)

Component	TA LUFT	Remark
Dichloromethane	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the	

	exhaust gas:Mass flow:0,10 kg/hr or Mass conc.:20 mg/m³	
2-nitrophenol	Chapter 5.2.5 Organic Substances, dust,including fine dust.To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values:Mass flow:0,20 kg/hr or Mass conc.:20 mg/m³ The mass per unit volume of 0,15 g/m³ in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h.For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m³.	
2-nitro-p-cresol	Chapter 5.2.5 Organic Substances, dust,including fine dust.To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values:Mass flow:0,20 kg/hr or Mass conc.:20 mg/m³ The mass per unit volume of 0,15 g/m³ in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h.For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m³.	
2,5-dinitrophenol	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas:Mass flow:0,10 kg/hr or Mass conc.:20 mg/m³	
3-nitrophenol	Chapter 5.2.5 Organic Substances, dust,including fine dust.To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values:Mass flow:0,20 kg/hr or Mass conc.:20 mg/m³ The mass per unit volume of 0,15 g/m³ in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h.For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m³.	
2,4-dinitrophenol	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas:Mass flow:0,10 kg/hr or Mass conc.:20 mg/m³	
2,6-dinitrophenol	Chapter 5.2.5 Organic Substances, class I. The following values are in	

	all not allowed to be exceeded in the exhaust gas:Mass flow:0,10 kg/hr or Mass conc.:20 mg/m³	
4-nitrophenol	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas:Mass flow:0,10 kg/hr or Mass conc.:20 mg/m³	
4-nitro-m-cresol	Chapter 5.2.5 Organic Substances, dust,including fine dust.To be treated as overall dust. The emissions of dust in the exhaust gas are not allowed to exceed the following values:Mass flow:0,20 kg/hr or Mass conc.:20 mg/m³ The mass per unit volume of 0,15 g/m³ in exhaust gas is not allowed to be exceeded also on observance or lower deviation of a mass flow of 0,20 kg/h.For emission sources that exceed the mass flow rate of 0.40 kg/h, the mass concentration in waste gas the mass concentration must not exceed 10 mg/m³.	
2-methyl-4,6-dinitro-phenol	Chapter 5.2.5 Organic Substances, class I. The following values are in all not allowed to be exceeded in the exhaust gas:Mass flow:0,10 kg/hr or Mass conc.:20 mg/m³	

German technical rules for hazardous substances(TRGS)

Component	TRGS	Remark
Dichloromethane	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 402|TRGS 401|TRGS 500|TRGS 509|TRGS 510	
2-nitrophenol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
2-nitro-p-cresol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
2,5-dinitrophenol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800	
3-nitrophenol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
2,4-dinitrophenol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	

2,6-dinitrophenol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800	
4-nitrophenol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
4-nitro-m-cresol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724	
2-methyl-4,6-dinitro-phenol	TRGS 201|TRGS 400|TRGS 555|TRGS 600|TRGS 401|TRGS 500|TRGS 509|TRGS 510|TRGS 800|TRGS 720|TRGS 721|TRGS 722|TRGS 723|TRGS 724|TRGS 523	

15.2 Chemical safety assessment

	No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16 Other information

Information on revision

Creation Date	2025/12/29
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		

Disclaimer

This Safety Data Sheet (SDS) was prepared according to REACH Regulation 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.