SAFETY DATA SHEET

Dichlofenthion Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 30.09.2023
8.0	28.09.2024	1552610-00016	Date of first issue: 14.04.2017

SECTION 1. IDENTIFICATION

Product identifier : Dichlofenthion Formulation

Manufacturer or supplier's details

Company : MSD

Address : Rua Coronel Bento Soares, 530
Cruzeiro - Sao Paulo - Brazil CEP 12730-340

Telephone : 908-740-4000

Emergency telephone : 1-908-423-6000

E-mail address : EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product
Restrictions on use : Not applicable

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with ABNT NBR 14725 Standard

Flammable liquids : Category 3

Acute toxicity (Oral) : Category 4

Acute toxicity (Dermal) : Category 5

Skin corrosion : Sub-category 1B

Serious eye damage : Category 1

Skin sensitization : Category 1

Germ cell mutagenicity : Category 2

Carcinogenicity (Oral) : Category 1A

Reproductive toxicity : Category 2

Specific target organ toxicity - single exposure : Category 1 (Nervous system)

Specific target organ toxicity - single exposure : Category 3

Specific target organ toxicity - repeated exposure : Category 2 (Nervous system, Respiratory Tract)

Aspiration hazard	:	Category 1
Short-term (acute) aquatic hazard	:	Category 1
Long-term (chronic) aquatic hazard	:	Category 1

GHS label elements in accordance with ABNT NBR 14725 Standard

Hazard pictograms :

Signal Word : Danger

Hazard Statements :

H226 Flammable liquid and vapor.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H313 May be harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H350 May cause cancer if swallowed.
H361d Suspected of damaging the unborn child.
H370 Causes damage to organs (Nervous system).
H373 May cause damage to organs (Nervous system, Respiratory Tract) through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements :

Prevention:

P201 Obtain special instructions before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/ doctor.
P302 + P312 IF ON SKIN: Call a POISON CENTER/ doctor if you feel unwell.
P303 + P361 + P353 + P310 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER/ doctor.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P391 Collect spillage.

Storage:

P405 Store locked up.

Other hazards which do not result in classification

Vapors may form explosive mixture with air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
Tar, wood	91722-33-7	Flam. Liq., 4 Skin Irrit., 2 Eye Irrit., 2B Skin Sens., 1B Aquatic Acute, 3 Aquatic Chronic, 3	>= 10 -< 20
Rosin	8050-09-7	Acute Tox. (Oral), 5 Aquatic Acute, 2	>= 10 -< 20
Tar, coal	8007-45-2	Acute Tox. (Oral), 4 Skin Irrit., 3 Eye Dam., 1 Skin Sens., 1 Muta., 2 Carc. (Oral), 1A STOT SE, (Nervous system) , 1 STOT SE, 3 STOT RE, (Respiratory Tract) , 2 Aquatic Acute, 2 Aquatic Chronic, 2	>= 10 -< 20
Ethylbenzene	100-41-4	Flam. Liq., 2 Acute Tox. (Oral), 5 Acute Tox. (Inhalation), 4 STOT RE, (Auditory system) , 2	>= 5 -< 10

		Asp. Tox., 1 Aquatic Acute, 2 Aquatic Chronic, 3	
Xylene	1330-20-7	Flam. Liq., 3 Acute Tox. (Oral), 5 Acute Tox. (Inhalation), 5 Acute Tox. (Dermal), 5 Skin Irrit., 2 Eye Irrit., 2A STOT SE, 3 STOT RE, (Auditory system) , 2 Asp. Tox., 1 Aquatic Acute, 2 Aquatic Chronic, 3	>= 5 -< 10
Dichlofenthion (ISO)	97-17-6	Acute Tox. (Oral), 3 Acute Tox. (Inhalation), 4 Acute Tox. (Dermal), 3 Repr., 2 STOT RE, (Nervous system) , 1 Aquatic Acute, 1 Aquatic Chronic, 1	>= 3 -< 5
Sodium hydroxide	1310-73-2	Met. Corr., 1 Skin Corr., 1A Eye Dam., 1	>= 2 -< 3
Phenol	108-95-2	Acute Tox. (Oral), 3 Acute Tox. (Inhalation), 3 Acute Tox. (Dermal), 3 Skin Corr., 1B Eye Dam., 1 Muta., 2 STOT RE, (Central nervous system, Kidney, Liver, Skin) , 2 Aquatic Acute, 2 Aquatic Chronic, 2	>= 1 -< 2,5
m-Cresol	108-39-4	Flam. Liq., 4 Acute Tox. (Oral), 3 Acute Tox. (Dermal), 3 Skin Corr., 1B Eye Dam., 1 Aquatic Acute, 2 Aquatic Chronic, 3	>= 1 -< 2,5
p-Cresol	106-44-5	Acute Tox. (Oral), 3 Acute Tox. (Dermal), 3	>= 1 -< 2,5

		Skin Corr., 1B Eye Dam., 1 Aquatic Acute, 2 Aquatic Chronic, 3	

SECTION 4. FIRST AID MEASURES

General advice	:	In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
In case of skin contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention immediately.
If swallowed	:	If swallowed, DO NOT induce vomiting. If vomiting occurs have person lean forward. Call a physician or poison control center immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	:	Harmful if swallowed. May be fatal if swallowed and enters airways. May be harmful in contact with skin. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Suspected of causing genetic defects. May cause cancer if swallowed. Suspected of damaging the unborn child. Causes damage to organs. May cause damage to organs through prolonged or repeated exposure. Causes severe burns. Causes digestive tract burns.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Notes to physician	:	Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam

Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Do not use a solid water stream as it may scatter and spread fire. Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.
Hazardous combustion products	:	Carbon oxides Metal oxides Nitrogen oxides (NOx)
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Remove all sources of ignition. Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).
Environmental precautions	:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g., by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	:	Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapors/mists with a water spray jet. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items

employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	If sufficient ventilation is unavailable, use with local exhaust ventilation. Use explosion-proof electrical, ventilating and lighting equipment.
Advice on safe handling	:	Do not get on skin or clothing. Do not breathe vapors. Do not swallow. Do not get in eyes. Wash skin thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment Non-sparking tools should be used. Keep container tightly closed. Already sensitized individuals, and those susceptible to asthma, allergies, chronic or recurrent respiratory disease, should consult their physician regarding working with respiratory irritants or sensitizers. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product. Take care to prevent spills, waste and minimize release to the environment.
Hygiene measures	:	If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before re-use. The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
Conditions for safe storage	:	Keep in properly labeled containers. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.
Materials to avoid	:	Do not store with the following product types: Strong oxidizing agents Self-reactive substances and mixtures

Organic peroxides
Flammable solids
Pyrophoric liquids
Pyrophoric solids
Self-heating substances and mixtures
Substances and mixtures which in contact with water emit flammable gases
Explosives
Gases
Very acutely toxic substances and mixtures

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Rosin	8050-09-7	TWA (Inhalable particulate matter)	0,001 mg/m³ (total Resin acids)	ACGIH
Ethylbenzene	100-41-4	LT	78 ppm 340 mg/m³	BR OEL
	Further information: Degree of harmfulness: medium			
		TWA	20 ppm	ACGIH
Xylene	1330-20-7	LT	78 ppm 340 mg/m³	BR OEL
	Further information: Degree of harmfulness: medium			
		TWA	20 ppm	ACGIH
Dichlofenthion (ISO)	97-17-6	TWA	20 µg/m3 (OEB 3)	Internal
	Further information: Skin			
		Wipe limit	200 µg/100 cm²	Internal
Sodium hydroxide	1310-73-2	C	2 mg/m³	ACGIH
Phenol	108-95-2	LT	4 ppm 15 mg/m³	BR OEL
	Further information: Absorption through the skin, Degree of harmfulness: maximum			
		TWA	5 ppm	ACGIH
m-Cresol	108-39-4	TWA (Inhalable fraction and vapor)	20 mg/m³	ACGIH
p-Cresol	106-44-5	TWA (Inhalable fraction and vapor)	20 mg/m³	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis

Phenol	108-95-2	phenol	Urine	End of workday	250 mg/g creatinine	BR BEI
		Phenol	Urine	End of shift (As soon as possible after exposure ceases)	250 mg/g creatinine	ACGIH BEI
Xylene	1330-20-7	methyl hippuric acid	Urine	End of workday	1.5 mg/g creatinine	BR BEI
		Methylhippuric acids	Urine	End of shift (As soon as possible after exposure ceases)	0.3 g/g creatinine	ACGIH BEI
Ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of workday	0.15 g/g creatinine	BR BEI
		Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	150 mg/g creatinine	ACGIH BEI

Engineering measures : Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).
All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.
Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices).
Minimize open handling.

Use explosion-proof electrical, ventilating and lighting equipment.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Combined particulates and organic vapor type

Hand protection

Material : Chemical-resistant gloves

Remarks	:	Consider double gloving. Take note that the product is flammable, which may impact the selection of hand protection.
Eye protection	:	Wear safety glasses with side shields or goggles. If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.
Skin and body protection	:	Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	viscous liquid
Color	:	dark, brown
Odor	:	strong
Odor Threshold	:	No data available
pH	:	Not applicable
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	30 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	No data available

Density	:	1.009 - 1.051 g/cm³ (20 °C)
Solubility(ies)		
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Particle characteristics		
Particle size	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Flammable liquid and vapor. Vapors may form explosive mixture with air. Can react with strong oxidizing agents.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Inhalation Skin contact Ingestion Eye contact

Acute toxicity

Harmful if swallowed.
May be harmful in contact with skin.

Product:

Acute oral toxicity	:	Acute toxicity estimate: 1.450 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: > 40 mg/l Exposure time: 4 h Test atmosphere: vapor Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: 3.724 mg/kg
Method: Calculation method

Components:

Tar, wood:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

Rosin:

Acute oral toxicity : LD50 (Rat): 2.800 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Tar, coal:

Acute oral toxicity : LD50 (Rat): 1.700 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg

Ethylbenzene:

Acute oral toxicity : LD50 (Rat): 3.500 mg/kg

Acute inhalation toxicity : LC50 (Rat): 17,8 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg

Xylene:

Acute oral toxicity : LD50 (Rat): 3.523 mg/kg
Method: Directive 67/548/EEC, Annex V, B.1.

Acute inhalation toxicity : LC50 (Rat): 27,571 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rabbit): > 4.200 mg/kg

Dichlofenthion (ISO):

Acute oral toxicity : LD50 (Rat): 172 mg/kg

LD50 (Rat): 270 mg/kg

Acute inhalation toxicity : LC50 (Rat): 1,75 mg/l

Acute dermal toxicity : LD50 (Rat): 355 mg/kg

LD50 (Rabbit): 6.000 mg/kg

Sodium hydroxide:

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Phenol:

Acute oral toxicity : LD50 (Rat): 650 mg/kg
Method: OECD Test Guideline 401

Acute toxicity estimate (Humans): 140 - 290 mg/kg
Method: Expert judgment

Acute inhalation toxicity : LC0 (Rat): 0,9 mg/l
Exposure time: 8 h
Test atmosphere: dust/mist
Assessment: Corrosive to the respiratory tract.

Acute toxicity estimate (Humans): > 0,9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgment

Acute dermal toxicity : LD50 (Rabbit): 660 mg/kg
Method: OECD Test Guideline 402

Acute toxicity estimate (Humans): 300 mg/kg
Method: Expert judgment

m-Cresol:

Acute oral toxicity : LD50 (Rat): 121 mg/kg
Remarks: Based on data from similar materials

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rabbit): 301 mg/kg
Remarks: Based on data from similar materials

p-Cresol:

Acute oral toxicity : LD50 (Rat): 172 - 250 mg/kg

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rabbit): 213 - 426 mg/kg

Skin corrosion/irritation

Causes severe burns.

Components:

Tar, wood:

Species : reconstructed human epidermis (RhE)

Method : OECD Test Guideline 439

Species : reconstructed human epidermis (RhE)
Method : OECD Test Guideline 431

Result : Skin irritation

Rosin:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Tar, coal:

Species : Rabbit
Result : Mild skin irritation

Xylene:

Species : Rabbit
Result : Skin irritation

Dichlofenthion (ISO):

Result : Mild skin irritation
Remarks : Based on data from similar materials

Sodium hydroxide:

Result : Corrosive after 3 minutes or less of exposure

Phenol:

Species : Rabbit
Result : Corrosive after 3 minutes to 1 hour of exposure

m-Cresol:

Species : Rabbit
Result : Corrosive after 3 minutes to 1 hour of exposure

p-Cresol:

Species : Rabbit
Result : Corrosive after 3 minutes to 1 hour of exposure

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

Tar, wood:

Result : Irritation to eyes, reversing within 7 days

Rosin:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405

Tar, coal:

Species	:	Human
Result	:	Irreversible effects on the eye

Xylene:

Species	:	Rabbit
Result	:	Irritation to eyes, reversing within 21 days

Sodium hydroxide:

Result	:	Irreversible effects on the eye
Remarks	:	Based on skin corrosivity.

Phenol:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Method	:	OECD Test Guideline 405

m-Cresol:

Species	:	Rabbit
Result	:	Irreversible effects on the eye

p-Cresol:

Species	:	Rabbit
Result	:	Irreversible effects on the eye

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Components:

Tar, wood:

Test Type	:	Local lymph node assay (LLNA)
Routes of exposure	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	positive
Assessment	:	Probability or evidence of low to moderate skin sensitization rate in humans

Rosin:

Test Type	:	Local lymph node assay (LLNA)
Routes of exposure	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	negative

Tar, coal:

Test Type	:	Local lymph node assay (LLNA)
Routes of exposure	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	positive
Remarks	:	Based on data from similar materials
Assessment	:	Probability or evidence of skin sensitization in humans

Xylene:

Test Type	:	Local lymph node assay (LLNA)
Routes of exposure	:	Skin contact
Species	:	Mouse
Result	:	negative

Dichlofenthion (ISO):

Routes of exposure	:	Dermal
Assessment	:	Does not cause skin sensitization.
Result	:	Weak sensitizer
Remarks	:	Based on data from similar materials

Sodium hydroxide:

Test Type	:	Human repeat insult patch test (HRIPT)
Routes of exposure	:	Skin contact
Result	:	negative

Phenol:

Test Type	:	Buehler Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative

p-Cresol:

Test Type	:	Draize Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Result	:	negative

Germ cell mutagenicity

Suspected of causing genetic defects.

Components:

Tar, wood:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative

Rosin:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative

Tar, coal:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: positive Remarks: Based on data from similar materials
Germ cell mutagenicity - Assessment	:	Positive result(s) from in vivo non-mammalian somatic cell mutagenicity tests, supported by positive results from in vitro mutagenicity assays. Remarks: Based on national or regional regulation.

Ethylbenzene:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative Test Type: Chromosome aberration test in vitro Result: negative
Genotoxicity in vivo	:	Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo Species: Mouse Application Route: Inhalation Method: OECD Test Guideline 486 Result: negative

Xylene:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative

		Test Type: Chromosome aberration test in vitro Result: negative Test Type: In vitro mammalian cell gene mutation test Result: negative Test Type: In vitro sister chromatid exchange assay in mammalian cells Result: negative
Genotoxicity in vivo	:	Test Type: Rodent dominant lethal test (germ cell) (in vivo) Species: Mouse Application Route: Skin contact Result: negative

Phenol:

Genotoxicity in vitro	:	Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: positive
Genotoxicity in vivo	:	Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Method: OECD Test Guideline 474 Result: positive Remarks: Annex VI From 1272/2008
Germ cell mutagenicity - Assessment	:	Positive result(s) from in vivo mammalian somatic cell mutagenicity tests.

m-Cresol:

Genotoxicity in vitro	:	Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: positive Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative
Genotoxicity in vivo	:	Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis) Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 475 Result: negative

p-Cresol:

Genotoxicity in vitro	:	Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: positive

		Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative
Genotoxicity in vivo	:	Test Type: Rodent dominant lethal test (germ cell) (in vivo) Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 478 Result: negative

Carcinogenicity

May cause cancer if swallowed.

Components:

Tar, coal:

Species	:	Mouse
Application Route	:	Ingestion
Exposure time	:	2 Years
Result	:	positive
Carcinogenicity - Assessment	:	Positive evidence from human epidemiological studies (oral) Remarks: Based on national or regional regulation.

Ethylbenzene:

Species	:	Rat
Application Route	:	inhalation (vapor)
Exposure time	:	104 weeks
Result	:	positive
Remarks	:	The mechanism or mode of action may not be relevant in humans.

Xylene:

Species	:	Rat
Application Route	:	Ingestion
Exposure time	:	103 weeks
Result	:	negative

Phenol:

Species	:	Mouse
Application Route	:	Ingestion
Exposure time	:	103 weeks
Method	:	OECD Test Guideline 451
Result	:	negative

m-Cresol:

Species	:	Mouse, males
Application Route	:	Ingestion
Exposure time	:	105 weeks
Result	:	equivocal
Remarks	:	Based on data from similar materials

Species	:	Mouse, female
Application Route	:	Ingestion
Exposure time	:	106 - 107 weeks
Result	:	positive
Remarks	:	Based on data from similar materials

Carcinogenicity - Assessment	:	Weight of evidence does not support classification as a carcinogen

p-Cresol:

Species	:	Mouse
Application Route	:	Ingestion
Exposure time	:	106 - 107 weeks
Result	:	negative
Remarks	:	Based on data from similar materials

Reproductive toxicity

Suspected of damaging the unborn child.

Components:

Rosin:

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rat Application Route: Ingestion Method: OECD Test Guideline 414 Result: negative

Ethylbenzene:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: inhalation (vapor) Method: OECD Test Guideline 416 Result: negative
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rat Application Route: Inhalation Method: OECD Test Guideline 414 Result: negative

Xylene:

Effects on fertility	:	Test Type: One-generation reproduction toxicity study Species: Rat Application Route: inhalation (vapor)

		Result: negative
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rat Application Route: inhalation (vapor) Result: negative

Dichlofenthion (ISO):

Effects on fetal development	:	Test Type: Development Species: Mouse Application Route: Intraperitoneal Developmental Toxicity: LOAEL: 80 mg/kg body weight Result: Reduced fetal weight., Embryotoxic effects. Remarks: Based on data from similar materials Test Type: Development Species: Rat Application Route: Intraperitoneal Developmental Toxicity: LOAEL: 10 mg/kg body weight Result: Reduced fetal weight., Embryotoxic effects., No teratogenic effects. Remarks: Based on data from similar materials
Reproductive toxicity - Assessment	:	Suspected of damaging the unborn child.

Phenol:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Method: OECD Test Guideline 416 Result: negative
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 414 Result: negative

m-Cresol:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Result: negative
Effects on fetal development	:	Test Type: Prenatal development toxicity study (teratogenicity) Species: Rat Application Route: Ingestion Result: negative

p-Cresol:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat

		Application Route: Ingestion Result: negative
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rat Application Route: Ingestion Result: negative

STOT-single exposure

May cause respiratory irritation.
Causes damage to organs (Nervous system).

Components:

Tar, coal:

Routes of exposure	:	Ingestion
Target Organs	:	Nervous system
Assessment	:	Shown to produce significant health effects in animals at concentrations of 300 mg/kg bw or less.

Xylene:

Assessment	:	May cause respiratory irritation.

STOT-repeated exposure

May cause damage to organs (Nervous system, Respiratory Tract) through prolonged or repeated exposure.

Components:

Tar, coal:

Target Organs	:	Respiratory Tract
Assessment	:	Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

Routes of exposure	:	inhalation (dust/mist/fume)
Target Organs	:	Respiratory Tract
Assessment	:	Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

Ethylbenzene:

Routes of exposure	:	inhalation (vapor)
Target Organs	:	Auditory system
Assessment	:	Shown to produce significant health effects in animals at concentrations of >0.2 to 1 mg/l/6h/d.

Xylene:

Routes of exposure	:	inhalation (vapor)
Target Organs	:	Auditory system
Assessment	:	Shown to produce significant health effects in animals at concentrations of >0.2 to 1 mg/l/6h/d.

Dichlofenthion (ISO):

Target Organs	:	Nervous system
Assessment	:	Causes damage to organs through prolonged or repeated exposure.
Remarks	:	Based on human experience.

Phenol:

Target Organs	:	Central nervous system, Kidney, Liver, Skin
Assessment	:	May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

Rosin:

Species	:	Rat, male
NOAEL	:	335 mg/kg
Application Route	:	Ingestion
Exposure time	:	90 Days
Method	:	OECD Test Guideline 408

Ethylbenzene:

Species	:	Rat
LOAEL	:	0,868 mg/l
Application Route	:	inhalation (vapor)
Exposure time	:	13 Weeks

Species	:	Rat
NOAEL	:	75 mg/kg
LOAEL	:	250 mg/kg
Application Route	:	Ingestion
Method	:	OECD Test Guideline 408

Xylene:

Species	:	Rat
LOAEL	:	> 0,2 - 1 mg/l
Application Route	:	inhalation (vapor)
Exposure time	:	13 Weeks
Remarks	:	Based on data from similar materials

Species	:	Rat
LOAEL	:	150 mg/kg
Application Route	:	Ingestion
Exposure time	:	90 Days

Dichlofenthion (ISO):

Species	:	Rat
NOAEL	:	0,75 mg/kg
Application Route	:	Oral
Exposure time	:	90 d

Species	:	Dog
NOAEL	:	0,75 mg/kg
Application Route	:	Oral
Exposure time	:	90 d

Phenol:

Species	:	Rat
LOAEL	:	300 mg/kg
Application Route	:	Ingestion
Exposure time	:	90 Days
Method	:	OECD Test Guideline 408

Species	:	Rat
NOAEL	:	>= 0,1 mg/l
Application Route	:	inhalation (vapor)
Exposure time	:	74 Days

Species	:	Rabbit
LOAEL	:	260 mg/kg
Application Route	:	Skin contact
Exposure time	:	18 Days

m-Cresol:

Species	:	Rat
NOAEL	:	150 mg/kg
Application Route	:	Ingestion
Exposure time	:	13 Weeks
Method	:	OECD Test Guideline 408

p-Cresol:

Species	:	Rat
NOAEL	:	50 mg/kg
LOAEL	:	175 mg/kg
Application Route	:	Ingestion
Exposure time	:	90 Days
Method	:	OECD Test Guideline 408

Aspiration toxicity

May be fatal if swallowed and enters airways.

Product:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Components:

Ethylbenzene:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Xylene:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Experience with human exposure

Components:

Dichlofenthion (ISO):

Skin contact	:	Symptoms: irritating, central nervous system effects, sweating Remarks: Can be absorbed through skin. May cause sensitization by skin contact.
Eye contact	:	Symptoms: constriction of pupils, central nervous system effects
Ingestion	:	Symptoms: Nausea, Diarrhea, Vomiting, sweating, Lachrymation, constriction of pupils, Central nervous system depression, Gastrointestinal disturbance, bronchospasm, central nervous system effects, Edema

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Tar, wood:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 28 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 17 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 EC10 (Desmodesmus subspicatus (green algae)): 14 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

Rosin:

Toxicity to fish	:	LL50 (Danio rerio (zebra fish)): > 1 - 10 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 203 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): 911 mg/l Exposure time: 48 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EL50 (Raphidocelis subcapitata (freshwater green alga)): > 1.000 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction

		Method: OECD Test Guideline 201 NOELR (Raphidocelis subcapitata (freshwater green alga)): 1.000 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 201
Toxicity to microorganisms	:	EC50 (activated sludge): > 10.000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

Tar, coal:

Toxicity to fish	:	LL50 (Danio rerio (zebra fish)): > 250 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 203 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): 2,8 mg/l Exposure time: 48 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	EL50 (Desmodesmus subspicatus (green algae)): 36 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials NOELR (Desmodesmus subspicatus (green algae)): 5 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials

Ethylbenzene:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 4,2 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1,8 - 2,4 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 3,6 mg/l Exposure time: 96 h NOEC (Pseudokirchneriella subcapitata (green algae)): 3,4 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Ceriodaphnia dubia (water flea)): 0,96 mg/l Exposure time: 7 d

Toxicity to microorganisms	:	EC50 (Nitrosomonas sp.): 96 mg/l Exposure time: 24 h

Xylene:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 13,5 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l Exposure time: 24 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	EC50 (Skeletonema costatum (marine diatom)): 10 mg/l Exposure time: 72 h
Toxicity to fish (Chronic toxicity)	:	NOEC (Danio rerio (zebra fish)): > 0,1 - < 1 mg/l Exposure time: 35 d Method: OECD Test Guideline 210 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	EL10 (Daphnia magna (Water flea)): > 1 - 10 mg/l Exposure time: 21 d Method: OECD Test Guideline 211 Remarks: Based on data from similar materials
Toxicity to microorganisms	:	NOEC: > 100 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: Based on data from similar materials

Dichlofenthion (ISO):

Toxicity to fish	:	LC50 (No species specified): 0,64 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,23 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,0011 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
M-Factor (Acute aquatic toxicity)	:	100
M-Factor (Chronic aquatic toxicity)	:	100

Phenol:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 24,9 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Ceriodaphnia dubia (water flea)): 3,1 mg/l Exposure time: 48 h

Toxicity to algae/aquatic plants	:	EC50 (Selenastrum capricornutum (green algae)): 61,1 mg/l Exposure time: 96 h
Toxicity to fish (Chronic toxicity)	:	NOEC: 0,077 mg/l Exposure time: 60 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 10 mg/l Exposure time: 16 d
Toxicity to microorganisms	:	IC50 (Nitrosomonas sp.): 21 mg/l Exposure time: 24 h

m-Cresol:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 8,6 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia pulex (Water flea)): > 99,5 mg/l Exposure time: 48 h
Toxicity to fish (Chronic toxicity)	:	NOEC (Pimephales promelas (fathead minnow)): 1,35 mg/l Exposure time: 32 d Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 1 mg/l Exposure time: 21 d Remarks: Based on data from similar materials

p-Cresol:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 7,4 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 7,7 mg/l Exposure time: 48 h Method: DIN 38412
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 7,8 mg/l Exposure time: 48 h EC10 (Desmodesmus subspicatus (green algae)): 2,3 mg/l Exposure time: 48 h
Toxicity to fish (Chronic toxicity)	:	NOEC (Pimephales promelas (fathead minnow)): 1,35 mg/l Exposure time: 32 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 1 mg/l Exposure time: 21 d
Toxicity to microorganisms	:	IC50 (Nitrosomonas sp.): 260 mg/l Exposure time: 24 h

Persistence and degradability

Components:

Tar, wood:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 47 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Rosin:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 71 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Ethylbenzene:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 70 - 80 %
Exposure time: 28 d

Xylene:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 70 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

Phenol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 62 %
Exposure time: 10 d
Method: OECD Test Guideline 301C

m-Cresol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 90 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

p-Cresol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 100 %
Exposure time: 8 d

Bioaccumulative potential

Components:

Tar, wood:

Partition coefficient: n-octanol/water	:	log Pow: 0,2 - 2,02

Rosin:

Partition coefficient: n-octanol/water	:	log Pow: > 3 - 6,2 Method: OECD Test Guideline 117

Tar, coal:

Partition coefficient: n-octanol/water	:	Remarks: No data available

Ethylbenzene:

Partition coefficient: n-octanol/water	:	log Pow: 3,6

Xylene:

Partition coefficient: n-octanol/water	:	log Pow: 3,16 Remarks: Calculation

Dichlofenthion (ISO):

Partition coefficient: n-octanol/water	:	log Pow: 5,14

Phenol:

Bioaccumulation	:	Species: Fish Bioconcentration factor (BCF): 17,5 Method: OECD Test Guideline 305
Partition coefficient: n-octanol/water	:	log Pow: 1,47

m-Cresol:

Bioaccumulation	:	Species: Leuciscus idus (Golden orfe) Bioconcentration factor (BCF): 17 - 20
Partition coefficient: n-octanol/water	:	log Pow: 1,96

p-Cresol:

Bioaccumulation	:	Species: Leuciscus idus (Golden orfe) Bioconcentration factor (BCF): 17 - 20 Remarks: Based on data from similar materials
Partition coefficient: n-octanol/water	:	log Pow: 1,94

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Do not dispose of waste into sewer. Dispose of in accordance with local regulations.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 2920
Proper shipping name	:	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Sodium hydroxide, Ethylbenzene)
Class	:	8
Subsidiary risk	:	3
Packing group	:	II
Labels	:	8 (3)
Environmentally hazardous	:	yes

IATA-DGR

UN/ID No.	:	UN 2920
Proper shipping name	:	Corrosive liquid, flammable, n.o.s. (Sodium hydroxide, Ethylbenzene)
Class	:	8
Subsidiary risk	:	3
Packing group	:	II
Labels	:	Corrosive, Flammable Liquids
Packing instruction (cargo aircraft)	:	855
Packing instruction (passenger aircraft)	:	851

IMDG-Code

UN number	:	UN 2920
Proper shipping name	:	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Sodium hydroxide, Ethylbenzene, Dichlofenthion (ISO))
Class	:	8
Subsidiary risk	:	3
Packing group	:	II
Labels	:	8 (3)
EmS Code	:	F-E, S-C
Marine pollutant	:	yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

ANTT

UN number	:	UN 2920
Proper shipping name	:	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Sodium hydroxide, Ethylbenzene)
Class	:	8
Subsidiary risk	:	3
Packing group	:	II
Labels	:	8 (3)
Hazard Identification Number	:	83

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

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

National List of Carcinogenic Agents for Humans - (LINACH)

Group 1: Carcinogenic to humans	
Tar, coal	8007-45-2
Group 2B: Possibly carcinogenic to humans	
Ethylbenzene	100-41-4

Brazil. List of chemicals controlled by the Federal Police	:	Sodium hydroxide Xylene

The ingredients of this product are reported in the following inventories:

AICS	:	not determined
DSL	:	not determined
IECSC	:	not determined

SECTION 16. OTHER INFORMATION

Revision Date	:	28.09.2024
Date format	:	dd.mm.yyyy

Further information

Sources of key data used to compile the Material Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
BR BEI	:	Brazil. NR7. Parameters for Biological Control of Occupational Exposure to Some Chemical Agents
BR OEL	:	Brazil. NR 15 - Unhealthy activities and operations
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / C	:	Ceiling limit
BR OEL / LT	:	Up to 48 hours /week

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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