

Safety Data Sheet

according to Regulation (EC) No 1907/2006

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 1 of 13

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

1.1. Product identifier

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

UFI: 3JWM-T0JG-F00Q-WP28

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

Use of the substance/mixture

Laboratory chemical

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

| | | |
|-------------------------|---------------------------------|------------------------------|
| Company name: | Fa. Bernd Kraft GmbH | |
| Street: | Stempelstraße 6 | |
| Place: | D-47167 Duisburg | |
| Telephone: | 0203/5194-0 | Telefax: 0203/5194-290 |
| e-mail: | info@berndkraft.de | |
| Contact person: | Abteilung Produktsicherheit | Telephone: 0203/5194-107/117 |
| e-mail: | produktsicherheit@berndkraft.de | |
| Internet: | www.berndkraft.de | |
| Responsible Department: | Abteilung Produktsicherheit | |

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Liq. 2; H225

Skin Irrit. 2; H315

Eye Irrit. 2; H319

Carc. 1B; H350

STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

1,4-dioxane

Signal word: Danger

Pictograms:



Safety Data Sheet

according to Regulation (EC) No 1907/2006

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 2 of 13

Hazard statements

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H350 May cause cancer.

Precautionary statements

P201 Obtain special instructions before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P403+P235 Store in a well-ventilated place. Keep cool.

Special labelling of certain mixtures

EUH019 May form explosive peroxides.
EUH066 Repeated exposure may cause skin dryness or cracking.
Restricted to professional users.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | | | Quantity |
|----------|---|--------------|------------------|-------------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 123-91-1 | 1,4-dioxane | | | 85 - < 90 % |
| | 204-661-8 | 603-024-00-5 | 01-2119462837-26 | |
| | Flam. Liq. 2, Carc. 1B, Eye Irrit. 2, STOT SE 3; H225 H350 H319 H335 EUH019 EUH066 | | | |
| 371-41-5 | 4-fluorophenol | | | 10 - < 15 % |
| | 206-736-0 | | | |
| | Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Aquatic Chronic 3; H332 H312 H302 H315 H319 H412 | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|----------|---|----------------|-------------|
| | Specific Conc. Limits, M-factors and ATE | | |
| 123-91-1 | 204-661-8 | 1,4-dioxane | 85 - < 90 % |
| | oral: LD50 = ca. 5150 mg/kg | | |
| 371-41-5 | 206-736-0 | 4-fluorophenol | 10 - < 15 % |
| | inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: ATE = 1100 mg/kg; oral: ATE = 500 mg/kg | | |

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 3 of 13

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.

Call a physician immediately.

After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Irritant

Cough

Dyspnoea

Dizziness

Gastrointestinal complaints

Headache

Vomiting

Repeated exposure may cause skin dryness or cracking.

Has degreasing effect on the skin.

4.3. Indication of any immediate medical attention and special treatment needed

Give sodium sulfate as laxative (1 tablespoon in 1 glass of water).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Combustible liquid.

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Hazardous combustion products

In case of fire may be liberated:

Carbon dioxide (CO₂) Carbon monoxide

Hydrogen fluoride

Beware of reignition.

5.3. Advice for firefighters

Remove persons to safety. Do not inhale explosion and combustion gases.

Avoid contact with skin, eyes and clothes.

In case of fire: Wear self-contained breathing apparatus.

Use water spray jet to protect personnel and to cool endangered containers.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 4 of 13

Additional information

- Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
- Suppress gases/vapours/mists with water spray jet.
- Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

- Keep away from sources of ignition - No smoking.
- This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).
- Take action to prevent static discharges.

For non-emergency personnel

- Provide adequate ventilation.
- Use personal protection equipment.
- Avoid contact with skin, eyes and clothes.
- Remove persons to safety.
- Emergency procedures
- Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

- Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

- Do not allow to enter into surface water or drains.
- The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.
- Danger of explosion

6.3. Methods and material for containment and cleaning up

For containment

- Cover drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Collect in closed and suitable containers for disposal.
- Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

- Clean contaminated articles and floor according to the environmental legislation.

Other information

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

- Avoid exposure - obtain special instructions before use.
- Read label before use. Handle and open container with care.
- When using do not eat, drink, smoke, sniff. Keep container tightly closed.

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 5 of 13

Use personal protection equipment. Use extractor hood (laboratory).
Do not breathe vapour/aerosol. Provide adequate ventilation.

Advice on protection against fire and explosion

Take action to prevent static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.
If handled uncovered, arrangements with local exhaust ventilation have to be used.
Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

Further information on storage conditions

Vapours may form explosive mixtures with air.
Keep container dry.

7.3. Specific end use(s)

Laboratory use
Laboratory chemical

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m ³ | fib/cm ³ | Category | Origin |
|----------|--------------------------|-----|-------------------|---------------------|-----------|--------|
| 123-91-1 | 1,4-Dioxane, tech. grade | 20 | 73 | | TWA (8 h) | |

DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|----------|--------------------------|----------------|----------|-------------------------|
| 123-91-1 | 1,4-dioxane | | | |
| | Worker DNEL, long-term | inhalation | systemic | 73 mg/m ³ |
| | Worker DNEL, acute | inhalation | local | 144 mg/m ³ |
| | Worker DNEL, long-term | dermal | systemic | 21 mg/kg bw/day |
| | Consumer DNEL, long-term | inhalation | systemic | 18,25 mg/m ³ |
| | Consumer DNEL, acute | inhalation | local | 72 mg/m ³ |
| | Consumer DNEL, long-term | dermal | systemic | 12 mg/kg bw/day |
| | Consumer DNEL, long-term | oral | systemic | 0,24 mg/kg bw/day |

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 6 of 13

PNEC values

| CAS No | Substance | |
|----------|--|-------------|
| | Environmental compartment | Value |
| 123-91-1 | 1,4-dioxane | |
| | Freshwater | 10 mg/l |
| | Freshwater (intermittent releases) | 10 mg/l |
| | Marine water | 0,67 mg/l |
| | Freshwater sediment | 37 mg/kg |
| | Micro-organisms in sewage treatment plants (STP) | 2700 mg/l |
| | Soil | 0,153 mg/kg |

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 897 Butoject®

Suitable material: Butyl caoutchouc (butyl rubber) 0,3 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 897 Butoject®

Suitable material: Butyl caoutchouc (butyl rubber) 0,3 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

Environmental exposure controls

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

Danger of explosion

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 7 of 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|------------------|-------------------|
| Physical state: | Liquid |
| Colour: | colourless |
| Odour: | like: Ether |
| Odour threshold: | No data available |

Changes in the physical state

| | |
|---|-------------------|
| Melting point/freezing point: | No data available |
| Boiling point or initial boiling point and boiling range: | No data available |
| Sublimation point: | No data available |
| Softening point: | No data available |
| Pour point: | No data available |
| No data available: | |
| Flash point: | ~11 °C |

Flammability

| | |
|---------------|----------------|
| Solid/liquid: | not applicable |
| Gas: | not applicable |

Explosive properties

Vapours can form explosive mixtures with air.

| | |
|----------------------------|-------------------|
| Lower explosion limits: | No data available |
| Upper explosion limits: | No data available |
| Auto-ignition temperature: | No data available |

Self-ignition temperature

| | |
|--------|----------------|
| Solid: | not applicable |
| Gas: | not applicable |

| | |
|----------------------------|----------------|
| Decomposition temperature: | not determined |
|----------------------------|----------------|

| | |
|-----------|-------------------|
| pH-Value: | No data available |
|-----------|-------------------|

| | |
|------------------------------------|-------------------|
| Viscosity / dynamic: (at 20 °C) | No data available |
|------------------------------------|-------------------|

| | |
|------------------------|-------------------|
| Viscosity / kinematic: | No data available |
|------------------------|-------------------|

| | |
|------------|-------------------|
| Flow time: | No data available |
|------------|-------------------|

| | |
|-------------------|-------------------|
| Water solubility: | No data available |
|-------------------|-------------------|

Solubility in other solvents

not determined

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

| | |
|------------------|-------------------|
| Vapour pressure: | No data available |
|------------------|-------------------|

| | |
|------------------|-------------------|
| Vapour pressure: | No data available |
|------------------|-------------------|

| | |
|----------|-------------------|
| Density: | No data available |
|----------|-------------------|

| | |
|---------------|-------------------|
| Bulk density: | No data available |
|---------------|-------------------|

| | |
|--------------------------|----------------|
| Relative vapour density: | not determined |
|--------------------------|----------------|

9.2. Other information

Information with regard to physical hazard classes

| | |
|------------------------|-----------------------|
| Sustaining combustion: | Sustaining combustion |
|------------------------|-----------------------|

Safety Data Sheet

according to Regulation (EC) No 1907/2006

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 8 of 13

Oxidizing properties

Not oxidising.

Other safety characteristics

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Evaporation rate:

not determined

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

Vapours can form explosive mixtures with air.

10.2. Chemical stability

Protect against: Air

10.3. Possibility of hazardous reactions

Oxidising agent

Hydrogen

Acids

Nitric acid

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials

plastics

Copper

Copper alloys

10.6. Hazardous decomposition products

No data available

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Avoid exposure - obtain special instructions before use.

Acute toxicity

Based on available data, the classification criteria are not met.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix

A

Revision date: 14.06.2021

Product code: 07193

Page 9 of 13

| CAS No | Chemical name | | | | |
|----------|----------------------|---------------|----------|--------|---|
| | Exposure route | Dose | Species | Source | Method |
| 123-91-1 | 1,4-dioxane | | | | |
| | oral | LD50 mg/kg | ca. 5150 | Rat | Study report (1973) OECD Guideline 401 |
| 371-41-5 | 4-fluorophenol | | | | |
| | oral | ATE mg/kg | 500 | | |
| | dermal | ATE mg/kg | 1100 | | |
| | inhalation vapour | ATE | 11 mg/l | | |
| | inhalation dust/mist | ATE | 1,5 mg/l | | |

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

May cause cancer. (1,4-dioxane)

Germ cell mutagenicity: 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

May cause respiratory irritation. (1,4-dioxane)

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Other information

Pulmonary oedema

Liver and kidney damage

Further information

Irritant

Cough

Dyspnoea

Dizziness

Gastrointestinal complaints

Headache

Vomiting

Repeated exposure may cause skin dryness or cracking.

Has degreasing effect on the skin.

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 10 of 13

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

| CAS No | Chemical name | | | | | |
|----------|--------------------------|---------------|-----------|---------|---------------------------------|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 123-91-1 | 1,4-dioxane | | | | | |
| | Acute fish toxicity | LC50 mg/l | 6700 | 96 h | Menidia beryllina | J. Hazard Mat. 1, 303-318. (1975) Method by Dawson |
| | Acute algae toxicity | ErC50 mg/l | > 1000 | 72 h | Pseudokirchneriella subcapitata | Publication (1996) OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l | > 1000 | 48 h | Daphnia magna | Publication (2002) OECD Guideline 202 |
| | Fish toxicity | NOEC mg/l | > 103 | 32 d | Pimephales promelas | European Chemicals Bureau, Institute for other: internal test method ET-15-1987-1 |
| | Crustacea toxicity | NOEC mg/l | 1000 | 21 d | Daphnia magna | Publication (2002) OECD Guideline 211 |

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|----------|---------------|---------|
| 123-91-1 | 1,4-dioxane | -0,42 |

BCF

| CAS No | Chemical name | BCF | Species | Source |
|----------|---------------|-----------|-----------------|----------------------|
| 123-91-1 | 1,4-dioxane | 0,3 - 0,7 | Cyprinus carpio | EU Risk assessment r |

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

There are no data available on the mixture itself.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Do not empty into drains.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains.

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 11 of 13

Do not empty into drains.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

| | |
|--|--|
| 14.1. UN number or ID number: | UN 1993 |
| 14.2. UN proper shipping name: | FLAMMABLE LIQUID, N.O.S. (1,4-dioxane) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |
| Classification code: | F1 |
| Special Provisions: | 274 601 640D |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |
| Transport category: | 2 |
| Hazard No: | 33 |
| Tunnel restriction code: | D/E |

Inland waterways transport (ADN)

| | |
|--|--|
| 14.1. UN number or ID number: | UN 1993 |
| 14.2. UN proper shipping name: | FLAMMABLE LIQUID, N.O.S. (1,4-dioxane) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |
| Classification code: | F1 |
| Special Provisions: | 274 601 640D |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |

Marine transport (IMDG)

| | |
|--|--|
| 14.1. UN number or ID number: | UN 1993 |
| 14.2. UN proper shipping name: | FLAMMABLE LIQUID, N.O.S. (1,4-dioxane) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |
| Special Provisions: | 274 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |
| EmS: | F-E, S-E |

Air transport (ICAO-TI/IATA-DGR)

| | |
|--|--|
| 14.1. UN number or ID number: | UN 1993 |
| 14.2. UN proper shipping name: | FLAMMABLE LIQUID, N.O.S. (1,4-dioxane) |
| 14.3. Transport hazard class(es): | 3 |
| 14.4. Packing group: | II |
| Hazard label: | 3 |
| Special Provisions: | A3 |
| Limited quantity Passenger: | 1 L |
| Passenger LQ: | Y341 |
| Excepted quantity: | E2 |
| IATA-packing instructions - Passenger: | 353 |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 12 of 13

| | |
|------------------------------------|------|
| IATA-max. quantity - Passenger: | 5 L |
| IATA-packing instructions - Cargo: | 364 |
| IATA-max. quantity - Cargo: | 60 L |

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Combustible liquid.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):
1,4-dioxane

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,9.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Safety Data Sheet

according to Regulation (EC) No 1907/2006

4-Fluorphenol solution 112 g/l in dioxane according to DIN 38405-9:2011, DEV D9, appendix A

Revision date: 14.06.2021

Product code: 07193

Page 13 of 13

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

| Classification | Classification procedure |
|---------------------|--------------------------|
| Flam. Liq. 2; H225 | On basis of test data |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |
| Carc. 1B; H350 | Calculation method |
| STOT SE 3; H335 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|--------|---|
| H225 | Highly flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H350 | May cause cancer. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH019 | May form explosive peroxides. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)