

Collodion 4%

Safety Data Sheet

641596

Version: 3.0

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
 Date of issue: 30/03/2012 Revision date 10/05/2020
 Supersedes 08/03/2017

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

1.1. Product identifier

Product form : Mixture
 Product name : Collodion 4%
 Product code : 641596
 Product group : Raw material

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

1.2.1. Relevant identified uses

Main use category : Pharmaceutical industry
 Industrial/Professional use spec : For professional use only
 Use of the substance/mixture : Exipient

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Duchefa Farma BV
 A. Hofmanweg 71
 2031BH Haarlem - The Netherlands
 T +31(0)23-5319093
farma@duchefa.nl - www.duchefa-farma.com

1.4. Emergency telephone number

Emergency number : Supplier contact information:
 +31(0)23-5319093 (M-F 09:00-17:00)
 +31(0)6-30109355 (outside office hours)

| Organisation/Company | Address | Comment |
|---|---------------------------------|---------|
| Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust | Avonley Road SE14 5ER London | |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU 2015:
 According to Regulation (EU) 2015/830 (REACH Annex I)

Flammable liquids, Category 1 H224
 Acute toxicity (oral), Category 4 H302
 Specific target organ toxicity — Single exposure, Category 3, Narcosis H336

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazardous ingredients

: Diethyl ether

Hazard statements (CLP)

: H224 - Extremely flammable liquid and vapour.
H302 - Harmful if swallowed.
H336 - May cause drowsiness or dizziness.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 - Rinse mouth.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

EUH-statements

: EUH019 - May form explosive peroxides.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---------------|--|----|---|
| Diethyl ether | (CAS-No.) 60-29-7 (EC-No.) 200-467-2 (EC Index-No.) 603-022-00-4 | 60 | Flam. Liq. 1, H224 Acute Tox. 4 (Oral), H302 STOT SE 3, H336 |

| | | | |
|-----------------------------------|---|----|--------------------|
| Ethanol 96% V/V | (CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5 (REACH-no) 01-2119457610-43 | 36 | Flam. Liq. 2, H225 |
| cellulose nitrate; nitrocellulose | (EC Index-No.) 603-037-00-6 | 4 | Expl. 1.1, H201 |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If medical advice is needed, have product container or label at hand.
- First-aid measures after inhalation : Remove victim to fresh air
Seek medical advice.
- First-aid measures after skin contact : Rinse with plenty of water
Seek medical attention if ill effect or irritation develops.
- First-aid measures after eye contact : Rinse immediately with plenty of water
If eye irritation persists, take medical advice.
- First-aid measures after ingestion : Rinse mouth.
Seek medical advice.

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

- Symptoms/effects : This material or its emissions may defat skin.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide
Dry powder
Foam.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : This product is flammable. On exposure to high temperature, may decompose, releasing toxic gases. Carbon monoxide. Nitrogen oxides.
- Explosion hazard : Without adequate ventilation formation of explosive mixtures may be possible.

5.3. Advice for firefighters

- Precautionary measures fire : Exercise caution when fighting any chemical fire.
- Firefighting instructions : Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ensure adequate air ventilation. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear proper protective equipment. [In case of inadequate ventilation] wear respiratory protection.

6.2. Environmental precautions

Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so.

Methods for cleaning up : Dam up the liquid spill. Take up liquid spill into inert absorbent material. Hose down area with water.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Vapours are heavier than air and spread above ground. In use, may form flammable vapour-air mixture.

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Use special care to avoid static electric charges.

Storage conditions : Store in dry, well-ventilated area
Keep container tightly closed.
Keep away from sources of ignition
Protect from sunlight.

Storage temperature : 15 - 25 °C

Packaging materials : glass.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Collodion 4% | | |
|--------------|---------------------------------|-----------------------|
| EU | Local name | Diethylether |
| EU | IOELV TWA (mg/m ³) | 308 mg/m ³ |
| EU | IOELV TWA (ppm) | 100 ppm |
| EU | IOELV STEL (mg/m ³) | 616 mg/m ³ |
| EU | IOELV STEL (ppm) | 200 ppm |

8.2. Exposure controls

Appropriate engineering controls:

Technical measures and appropriate working operations should have priority over the use of personal protective equipment.

Hand protection:

| Type | Material | Permeation | Thickness (mm) | Standard |
|--------|----------------------|-------------------|----------------|------------|
| Gloves | Nitrile rubber (NBR) | 6 (> 480 minutes) | 0,11 | EN ISO 374 |

Eye protection:

Safety glasses (to European standard EN 166 or equivalent)

Skin and body protection:

Wear suitable protective clothing.

Respiratory protection:

Dustmask with filtertype P2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|--------------------------------------|
| Physical state | : Liquid |
| Appearance | : Clear. |
| Colour | : Colourless. |
| Odour | : ethereal. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : 35 °C |
| Flash point | : -40 °C |
| Auto-ignition temperature | : > 180 °C |
| Decomposition temperature | : 180 °C |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : 0.76 - 0.8 |
| Solubility | : Completely miscibility with water. |
| Log Pow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : May form explosive peroxides. |
| Oxidising properties | : No data available |
| Explosive limits | : 1.7 - 36 vol % |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

heat

High temperature

Light (daylight).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Peroxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

| Collodion 4% | |
|---------------------|-------------|
| LD50 oral rat | 1215 mg/kg |
| LC50 inhalation rat | 125 mg/l/4h |
| ATE CLP (vapours) | 125 mg/l/4h |
| ATE CLP (dust,mist) | 125 mg/l/4h |

| Diethyl ether (60-29-7) | |
|-------------------------|------------|
| LD50 oral rat | 1215 mg/kg |

| Ethanol 96% V/V (64-17-5) | |
|---------------------------|------------------------------|
| LD50 oral rat | 6200 mg/kg |
| LD50 oral | 6300 mg/kg bodyweight rabbit |

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

| Diethyl ether (60-29-7) | |
|--------------------------------|--|
| LC50 fish 1 | 2840 mg/l <i>Leuciscus idus</i> , 48 h |
| EC50 <i>Daphnia</i> 1 | 1380 mg/l 48 h |
| EC50 other aquatic organisms 2 | 5600 mg/l <i>Photobacterium phosphoreum</i> , 15 min |

| Ethanol 96% V/V (64-17-5) | |
|--|--|
| LC50 fish 1 | 11200 mg/l 24h (<i>Oncorhynchus mykiss</i> , US EPA E03-05) |
| LC50 fish 2 | 13000 mg/l 96h (<i>Oncorhynchus mykiss</i> , OECD 203) |
| LC50 other aquatic organisms 1 | 275 mg/l 72h (<i>Chlorella vulgaris</i> , OECD 201) |
| EC50 <i>Daphnia</i> 1 | 12340 mg/l 48 h. |
| EC10 | 12 mg/l/72h (<i>Chlorella vulgaris</i> , OECD 201) |
| bacteria (<i>Pseudomonas putida</i>) | toxic limit concentration: 6500 mg/l |
| Activated sludge | Damage from 15 g / l |
| Behaviour in sewage treatment plants | EC50 > 1000 mg/l |

12.2. Persistence and degradability

| Diethyl ether (60-29-7) | |
|-------------------------------|----------------------------|
| Persistence and degradability | Not readily biodegradable. |

| Ethanol 96% V/V (64-17-5) | |
|---------------------------------|---|
| Persistence and degradability | readily degradable in water. |
| Biochemical oxygen demand (BOD) | 0.93 - 1.67 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.99 g O ₂ /g substance |
| ThOD | 2.1 g O ₂ /g substance |
| BOD (% of ThOD) | 90 % ThOD |

12.3. Bioaccumulative potential

| Diethyl ether (60-29-7) | |
|-------------------------|------|
| Log Pow | 0.89 |

| Ethanol 96% V/V (64-17-5) | |
|---------------------------|----------------------------------|
| Log Pow | - 0.31 |
| Bioaccumulative potential | Slightly or not bioaccumulative. |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available



SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Avoid release to the environment.
Product/Packaging disposal recommendations : Dispose of this material and its container at hazardous or special waste collection point.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR | IATA |
|--|---|
| 14.1. UN number | |
| 1993 | 1993 |
| 14.2. UN proper shipping name | |
| FLAMMABLE LIQUID, N.O.S. | Flammable liquid, n.o.s. |
| 14.3. Transport hazard class(es) | |
| 3 | 3 |
|  |  |
| 14.4. Packing group | |
| I | I |
| 14.5. Environmental hazards | |
| Dangerous for the environment : No | Dangerous for the environment : No |
| No supplementary information available | |

14.6. Special precautions for user

. Overland transport

Classification code (ADR) : F1
Special provisions (ADR) : 274
Limited quantities (ADR) : 0
Excepted quantities (ADR) : E3
Packing instructions (ADR) : P001
Mixed packing provisions (ADR) : MP7, MP17
Portable tank and bulk container instructions (ADR) : T11
Portable tank and bulk container special provisions (ADR) : TP1, TP27
Tank code (ADR) : L4BN
Vehicle for tank carriage : FL
Transport category (ADR) : 1
Special provisions for carriage - Operation (ADR) : S2, S20

Hazard identification number : 33
(Kemler No.)

Orange plates :



Tunnel restriction code (ADR) : D/E

EAC code : 3YE

- Air transport

PCA Excepted quantities (IATA) : E3

PCA Limited quantities (IATA) : Forbidden

PCA limited quantity max net quantity (IATA) : Forbidden

PCA packing instructions (IATA) : 351

PCA max net quantity (IATA) : 1L

CAO packing instructions (IATA) : 361

CAO max net quantity (IATA) : 30L

Special provisions (IATA) : A3

ERG code (IATA) : 3H

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

| | | | |
|-----|---|----------|--|
| 2.1 | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Modified | |
| 4.1 | First-aid measures after ingestion | Modified | |
| 4.1 | First-aid measures general | Added | |
| 6.3 | Methods for cleaning up | Modified | |
| 7.2 | Technical measures | Added | |
| 8.2 | Appropriate engineering controls | Added | |
| 9.1 | Solubility | Added | |

Collodion 4%

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| | | | |
|------|----------------------|-------|--|
| 9.1 | Explosive properties | Added | |
| 11.1 | LC50 inhalation rat | Added | |

Abbreviations and acronyms:

| | |
|-------|---|
| SDS | Safety Data Sheet |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| IMDG | International Maritime Dangerous Goods |
| IATA | International Air Transport Association |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Supplier.

Full text of H- and EUH-statements:

| | |
|---------------------|--|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Expl. 1.1 | Explosives, Division 1.1 |
| Flam. Liq. 1 | Flammable liquids, Category 1 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Narcosis |
| H201 | Explosive; mass explosion hazard. |
| H224 | Extremely flammable liquid and vapour. |
| H225 | Highly flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H336 | May cause drowsiness or dizziness. |
| EUH019 | May form explosive peroxides. |

SDS EU (REACH Annex II) ducheфа nieuwe logo

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.