

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

1.1 Product identifier

Mirapont Agent Plus
Article number: 203016

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

1.2.1 Relevant uses

Isolating agent

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Hager & Werken GmbH & Co. KG
Ackerstr. 1
47269 Duisburg / GERMANY
Phone +49(0)203-99269-0
Fax +49 (0)203 29 92 83
Homepage www.hagerwerken.de
E-mail info@hagerwerken.de

Address enquiries to

Technical information

info@hagerwerken.de

Safety Data Sheet

sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body




+49 (0) 551-19240 Giftinformationszentrum-Nord

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

Aerosol 1: H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.
Skin Irrit. 2: H315 Causes skin irritation.
STOT SE 3: H336 May cause drowsiness or dizziness.
Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

	The determination of properties hazardous to health does not take the propellant or carrier material into account. The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).
Hazard pictograms	  
Signal word	DANGER
Contains:	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Hazard statements	H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122°F. P260 Do not breathe mist / vapours / spray. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves. P312 Call a POISON CENTER / doctor if you feel unwell. P501 Dispose of contents/container in accordance with local/national regulation.

2.3 Other hazards

Environmental hazards	Does not contain any PBT or vPvB substances. Contains no ingredients with endocrine-disrupting properties.
Other hazards	Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
40 - <60	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics GHS/CLP: Flam. Liq. 2: H225 - Asp. Tox. 1: H304 - Skin Irrit. 2: H315 - STOT SE 3: H336 - Aquatic Chronic 2: H411
25 - <40	Propane CAS: 74-98-6 GHS/CLP: Flam. Gas 1: H220 - Press. Gas: H280
2,5 - <5	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics CAS: 64742-48-9 GHS/CLP: Flam. Liq. 3: H226 - Asp. Tox. 1: H304 - STOT SE 3: H336 - EUH066
0,25 - <1	Tetrachloroethylene CAS: 127-18-4 GHS/CLP: Carc. 2: H351 - Aquatic Chronic 2: H411

Comment on component parts Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information	Change soaked clothing.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
Eye contact	In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.
Ingestion	Do not induce vomiting. In the event of symptoms seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

Headache
Drowsiness
Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide. Water spray jet. Dry powder. Foam.
Extinguishing media that must not be used	Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products, carbon monoxide (CO), not combusted hydrocarbons
Bursting aerosols can be forcibly projected from a fire.

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.
Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.
Ensure adequate ventilation.
Use personal protective equipment (protective gloves, safety glasses, protective clothing).
High risk of slipping due to leakage/spillage of product.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use solvent-resistant equipment.

Use only in well-ventilated areas.

Keep away from all sources of ignition - Refrain from smoking.

Vapours can form an explosive mixture with air.

Do not eat, drink, smoke or take drugs at work.

Wash hands before breaks and after work.

Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Provide solvent-resistant and impermeable floor.

Do not store together with oxidizing agents.

Keep container in a well-ventilated place.

Protect from heat/overheating and from sun.

Keep in a cool place, heat causes increase in pressure and risk of bursting.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection
8.1 Control parameters
Ingredients with occupational exposure limits to be monitored (GB)

Substance
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Long-term exposure: 1200 mg/m ³
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics
CAS: 64742-48-9
Long-term exposure: 100 ppm, 525 mg/m ³ , OSHA
Tetrachloroethylene
CAS: 127-18-4
Long-term exposure: 50 ppm, 345 mg/m ³
Short-term exposure (15-minute): 100 ppm, 689 mg/m ³

DNEL

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
Industrial, inhalative (vapor), Long-term - systemic effects, 1500 mg/m ³
Industrial, dermal, Long-term - systemic effects, 300 mg/kg bw/d
general population, oral, Long-term - systemic effects, 300 mg/kg bw/d
general population, dermal, Long-term - systemic effects, 300 mg/kg bw/d
general population, inhalative (vapor), Long-term - systemic effects, 900 mg/m ³
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Industrial, inhalative, Long-term - systemic effects, 2085 mg/m ³
Industrial, dermal, Long-term - systemic effects, 300 mg/kg bw/d
general population, oral, Long-term - systemic effects, 149 mg/kg bw/d
general population, inhalative, Long-term - systemic effects, 477 mg/m ³
general population, dermal, Long-term - systemic effects, 149 mg/kg bw/d
Propane, CAS: 74-98-6
There are no DNEL values established for the substance.

PNEC

Substance
Propane, CAS: 74-98-6
There are no PNEC values established for the substance.

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	0,7 mm Butyl rubber The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Protective clothing (EN 340)
Other	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter AX (DIN EN 14387).
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	See SECTION 6+7.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	aerosol
Color	colourless
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not applicable
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	not determined
Upper explosion limit	not determined
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	830 (20°C)
Density [g/cm³]	0,675
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	virtually insoluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not determined
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Evaporation speed	not applicable
Melting point [°C]	not applicable
Auto-ignition temperature	>200
Decomposition temperature [°C]	not applicable
Particle characteristics	No information available.

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

Reactions with oxidizing agents.

Because of the high vapour pressure, containers are liable to burst if temperature rises.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Strong oxidizing agent.

10.6 Hazardous decomposition products

Flammable gases/vapours.

SECTION 11: Toxicological information
11.1 Information on toxicological effects

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

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LD50, oral, Rat, > 5000 mg/kg
Tetrachloroethylene, CAS: 127-18-4
LD50, oral, Rat, 2629 mg/kg (IUCLID)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
LD50, oral, Rat, > 3000 mg/kg bw

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

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LD50, dermal, Rabbit, > 5000 mg/kg

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

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LC50, inhalative, Rat, > 4951 mg/m ³ /4h
Tetrachloroethylene, CAS: 127-18-4
LC50, inhalative, Rat, 27,58 mg/l 4h OECD 403 (IUCLID)
Propane, CAS: 74-98-6
LC50, inhalative, Rat, > 1443 mg/l (15 min) (Lit.)

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
Rabbit, not irritating (OECD 405)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Eye, Rabbit, In vivo study, non-irritating
Propane, CAS: 74-98-6
Eye, non-irritating

Skin corrosion/irritation Irritant

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
Rabbit, not irritating (OECD 404)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
dermal, Rabbit, OECD 404, irritant
Propane, CAS: 74-98-6
dermal, non-irritating

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Substance
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
No information available.

Propane, CAS: 74-98-6

inhalative, non-sensitizing

dermal, non-sensitizing

Specific target organ toxicity — single exposure — Vapours may cause drowsiness and dizziness.

Substance

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9

NOAEC, inhalative, Human, 1500-2500 mg/m³

Propane, CAS: 74-98-6

inhalative, non-irritating

Specific target organ toxicity — repeated exposure — Based on available data, the classification criteria are not met.

Substance

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9

NOAEC, inhalative, Rat, > 24,3g/m³ (13 weeks)

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

NOAEC, inhalative, Rat, 12470 mg/m³, Study, negativ

Propane, CAS: 74-98-6

NOAEC, inhalative, Rat, 4437 mg/m³

Mutagenicity — Does not contain a relevant substance that meets the classification criteria.

Substance

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

No information available.

Reproduction toxicity — Does not contain a relevant substance that meets the classification criteria.

Substance

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

NOAEC, inhalative, Rat, 31680 mg/m³, In vivo study, negativ

Carcinogenicity — This product contains one or more substances of categorie Carc. 2 (CLP).

Substance

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

No information available.

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

General remarks

Toxicological data of complete product are not available.

SECTION 12: Ecological information

12.1 Toxicity

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
EL0, (48h), Daphnia magna, 1000 mg/l
EL50, (72h), Algae, > 1000 mg/l
NOELR, (72h), Algae, 100 mg/l
LL50, (96h), Oncorhynchus mykiss, > 1000 mg/l
Tetrachloroethylene, CAS: 127-18-4
LC50, (96h), Oncorhynchus mykiss, 4,99 mg/l (OECD 203 (Lit.))
EC50, (48h), Daphnia magna, 22 mg/l (OECD 202 (Lit.))
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
EC50, (72h), Pseudokirchneriella subcapitata, 10 - 30 mg/l
EC50, (48h), Daphnia magna, 3 mg/l
NOEC, (21d), Daphnia magna, 0,17 mg/l
NOELR, (72h), Pseudokirchneriella subcapitata, 10 mg/l
LL50, (96h), Oncorhynchus mykiss, > 13,4 mg/l

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

Ecological data of complete product are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with national regulations.

Product

Dispose of as hazardous waste.

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID 1950

Inland navigation (ADN) 1950

Marine transport in accordance with IMDG 1950

Air transport in accordance with IATA 1950

14.2 UN proper shipping name

Transport by land according to ADR/RID Aerosols

- Classification Code 5F

- Label



- ADR LQ 1 I

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 2 (D)

Inland navigation (ADN) Aerosols

- Classification Code 5F

- Label



Marine transport in accordance with IMDG Aerosols (Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics)

- EMS F-D, S-U

- Label



- IMDG LQ 1 I

Air transport in accordance with IATA Aerosols, flammable

- Label



14.3 Transport hazard class(es)

Transport by land according to ADR/RID 2

Inland navigation (ADN) 2

Marine transport in accordance with IMDG 2.1

Air transport in accordance with IATA 2.1

14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID yes

Inland navigation (ADN) yes

Marine transport in accordance with IMDG MARINE POLLUTANT

Air transport in accordance with IATA yes

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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**

TRANSPORT-REGULATIONS ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2021)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- **Observe employment restrictions for people** Observe employment restrictions for young people.

- **VOC (2010/75/CE)** 100 %

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information
16.1 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 ATE = acute toxicity estimate
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 EL50 = Median effective loading
 ELINCS = European List of Notified Chemical Substances
 EmS = Emergency Schedules
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 IVIS = In vitro irritation score
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 LL50 = Median lethal loading
 LQ = Limited Quantities
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 TLV@/TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.2 Other information
Classification procedure

Aerosol 1: H222 Extremely flammable aerosol. (Bridging principle "Aerosols") H229
 Pressurised container: May burst if heated. (Bridging principle "Aerosols")
 Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
 STOT SE 3: H336 May cause drowsiness or dizziness. (Calculation method)
 Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects. (Calculation method)

Modified position

none

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