SAFETY DATA SHEET

Multiseal HR

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

1.1. Product identifier

▼Trade name

Multiseal HR

▼Product no.

8028050

Unique formula identifier (UFI)

JF00-X0Q2-W006-4V04

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

▼Relevant identified uses of the substance or mixture

Cleaning fluid

Restricted to professional and industrial use.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Unipak A/S
Marktoften 3C
8464 Galten
Denmark
+45 8626 1177
www.unipak.dk

E-mail

sales@unipak.dk

Revision

03/07/2026

SDS Version

4.0

Date of previous version

31/01/2023 (3.0)

1.4. ▼Emergency telephone number

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)
General public:
England - Dial 111 to reach NHS 111 (24 hour service)
Scotland - Dial 111 to reach NHS 24 (24 hour service)
Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour service)
See section 4 “First aid measures”.

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.1. Classification of the substance or mixture

Met. Corr. 1; H290, May be corrosive to metals.

Skin Corr. 1; H314, Causes severe skin burns and eye damage.
Eye Dam. 1; H318, Causes serious eye damage.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

May be corrosive to metals. (H290)
Causes severe skin burns and eye damage. (H314)

Precautionary statement(s)

▼General
Not applicable.

▼Prevention
Wear face protection/protective gloves/protective clothing. (P280)

▼Response
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. (P303+P361+P353)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
Immediately call a POISON CENTER/doctor. (P310)

▼Storage
Not applicable.

▼Disposal
Not applicable.

Hazardous substances

Citric acid monohydrate
2-phosphonobutane-1,2,4-tricarboxylic acid

Additional labelling

UFI: JF00-X0Q2-W006-4V04

▼Labelling of contents according to Detergents Regulation (EC) No 648/2004 as retained and amended in UK law
≥5% - <15%
· Phosphonates

2.3. Other hazards

▼Additional warnings
This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. ▼Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Citric acid monohydrate	CAS No.: 5949-29-1 EC No.: 201-069-1 UK-REACH: 01-2119457026-42 Index No.:	25-40%	Eye Irrit. 2, H319	

2-phosphonobutane-1,2,4-tricarboxylic acid	CAS No.: 37971-36-1 EC No.: 253-733-5 UK-REACH: 01-2119436643-39 Index No.:	5-10%	Met. Corr. 1, H290 Eye Irrit. 2, H319

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

-

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment.

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

▼Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit from returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable.

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

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. ▼Extinguishing media

Not applicable.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Carbon oxides (CO / CO2)

5.3. ▼Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.
Hazchem Code: 2X

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.
Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.
Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 “Disposal considerations” on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. ▼Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage conditions

Dry, cool and well ventilated

Incompatible materials

bases and metals

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No substances are listed in the national list of substances with an occupational exposure limit.

▼DNEL

2-phosphonobutane-1,2,4-tricarboxylic acid

Duration:	Route of exposure:	DNEL:

Long term – Systemic effects - Workers	Dermal	4,2 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	80 mg/kg bw/day
Long term – Systemic effects - Workers	Inhalation - fume / dust	15 mg/m³
Short term – Systemic effects - Workers	Inhalation - fume / dust	158 mg/m³
Long term – Systemic effects - Workers	Oral	2,1 mg/kg bw/day
Short term – Systemic effects - Workers	Oral	65 mg/kg bw/day

▼PNEC

2-phosphonobutane-1,2,4-tricarboxylic acid

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		3,33 mg/L
Freshwater sediment		1,47 mg/kg
Marine water		0,33 mg/L
Sewage treatment plant		50,4 mg/L
Soil		0,49 mg/kg

8.2. ▼Exposure controls

Apply general control to prevent unnecessary exposure

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Ensure that eyewash stations and safety showers are located within easy reach.
Apply standard precautions during use of the product. Avoid inhalation of vapours.

▼Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Wash contaminated clothing before reuse.
Use only UKCA marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
No specific requirements			

Skin protection

Work situation	Recommended	Type/Category	Standards
When there is risk of splash- / intermittent exposure	Dedicated work clothing should be worn.	-	-

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Nitrile	0,3	120	EN374-2

Eye protection

Type	Standards
Face shield alternatively safety glasses with side shields.	EN166

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Liquid

Colour
Brown

Odour / Odour threshold
Faint

pH
1,1

Density (g/cm^3)
1.28

▼Kinematic viscosity
No data available.

Particle characteristics
Does not apply to liquids.

Phase changes

▼Melting point/Freezing point (°C)
No data available.

Softening point/range (°C)
Does not apply to liquids.

Boiling point (°C)
>100

▼Vapour pressure
No data available.

▼Relative vapour density
No data available.

▼Decomposition temperature (°C)
No data available.

Data on fire and explosion hazards

▼Flash point (°C)
No data available.

▼Flammability (°C)
No data available.

▼Auto-ignition temperature (°C)
No data available.

▼Lower and upper explosion limit (% v/v)
No data available.

Solubility

Solubility in water

Completely soluble

▼n-octanol/water coefficient (LogKow)

No data available.

▼Solubility in fat (g/L)

No data available.

9.2. Other information

VOC (g/l)

0

▼Oxidizing properties

No data available.

Other physical and chemical parameters

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions with metals and bases.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions

Hydrogen is given off by reacting with metals.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

bases and metals

10.6. ▼Hazardous decomposition products

Thermal decomposition may produce corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

▼Acute toxicity

Product/substance	Citric acid monohydrate
Route of exposure:	Oral
Test:	LD50
Result:	5400 mg/kg Mouse ·

Product/substance	Citric acid monohydrate
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	3000 mg/kg ·

Product/substance	2-phosphonobutane-1,2,4-tricarboxylic acid
Species:	Rat
Route of exposure:	Dermal
Test:	LD50
Result:	> 4000mg/kg ·

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

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation
Causes serious eye damage.

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

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

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

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

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

STOT-single exposure
Based on available data, the classification criteria are not met.

STOT-repeated exposure
Based on available data, the classification criteria are not met.

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

▼Symptoms related to the physical, chemical and toxicological characteristics
Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

11.2. Information on other hazards

▼Endocrine disrupting properties
This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information
None known.

SECTION 12: Ecological information

12.1. ▼Toxicity

Product/substance	Citric acid monohydrate
Species:	Daphnia
Duration:	72 hours
Result:	120 mg/L ·

Product/substance	Citric acid monohydrate
Species:	Crustacean
Duration:	48 hours
Test:	LC50
Result:	160mg/L ·

Product/substance	Citric acid monohydrate
Species:	Algae
Duration:	3 hours
Test:	EC0
Result:	640 mg/L ·

Product/substance	Citric acid monohydrate
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	1516-1710 mg/L ·

Product/substance	2-phosphonobutane-1,2,4-tricarboxylic acid
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	> 1042 mg/L ·

Product/substance	2-phosphonobutane-1,2,4-tricarboxylic acid
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	> 1071 mg/L ·

Product/substance	2-phosphonobutane-1,2,4-tricarboxylic acid
Species:	Algae
Duration:	72 hours
Test:	IC50
Result:	> 140 mg/L ·

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

12.2. ▼Persistence and degradability

Product/substance	Citric acid monohydrate
Result:	97
Conclusion:	-
Test:	OECD 301 B

12.3. ▼Bioaccumulative potential

Product/substance	2-phosphonobutane-1,2,4-tricarboxylic acid
LogKow:	-1,3600
Conclusion:	-

12.4. Mobility in soil

No data available.

12.5. ▼Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. ▼Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

▼Waste treatment methods

Product is covered by the regulations on hazardous waste. (*)
HP 8 – Corrosive
Dispose of contents/container to an approved waste disposal plant.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

20 01 14* Acids

▼Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR/ADN/RID	UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-phosphonobutane-1,2,4-tricarboxylic acid)	Transport hazard class: 8 Label: 8 Classification code: C3 	III	No	Limited quantities: 5 L Tunnel restriction code: (E) See below for additional information.
IMDG	UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-phosphonobutane-1,2,4-tricarboxylic acid)	Transport hazard class: 8 Label: 8 Classification code: C3 	III	No	Limited quantities: 5 L EmS: F-A S-B See below for additional information.
IATA	UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-phosphonobutane-1,2,4-tricarboxylic acid)	Transport hazard class: 8 Label: 8 Classification code: C3 	III	No	See below for additional information.

* Packing group

** Environmental hazards

▼Additional information

This product is within scope of the regulations of transport of dangerous goods.
ADR/ADN/RID / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.
IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.
IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.
Hazchem Code: 2X

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.
People under the age of 18 shall not be exposed to this product.

Demands for specific education

No specific requirements.

Control of Major Accident Hazards (COMAH) - Categories / dangerous substances

Not applicable.

▼Labelling of contents according to Detergents Regulation (EC) No 648/2004 as retained and amended in UK law

≥5% - <15%
· Phosphonates

▼Additional information

Not applicable.

Sources

The Management of Health and Safety at Work Regulations 1999.
Regulation (EC) No 648/2004 on detergents as retained and amended in UK law.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.
Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

▼Full text of H-phrases as mentioned in section 3

H290, May be corrosive to metals.
H319, Causes serious eye irritation.

▼Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne (European conformity)
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EC = Effective concentration
ED = Effective dose
EINECS = European Inventory of Existing Commercial chemical Substances
EL = Effective Loading
ErC = Concentration associated with x% growth rate response
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
GWP = Global warming potential
HP = Hazardous Property code
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IC = X maximum inhibitory concentration
IMDG = International Maritime Dangerous Goods
LC = Lethal concentration
LCLo = Value is the lowest concentration of a material in air reported to have caused the death of animals or humans
LD = Lethal dose
LOAEC = Lowest Observed Adverse Effect Concentration
LOAEL = Lowest Observed Adverse Effect Level
LOEC = Lowest Observed Effect Concentration
LogKow = logarithm of the n-octanol/water coefficient
LL = Lethal Loading
M = For multiplication factor
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NOAEC = No Observed Adverse Effect Concentration
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
NOELR = No Observable Effect Loading Rate
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.
The classification of the substance/mixture in regard of skin corrosion and serious eye damage is based on the pH-criterion given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The safety data sheet is validated by

THA

▼Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en