

Version 1.0

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

1.1 Product identifier

Substance name : ZINC-PYRION™ 48% MPF

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

Use of the Substance/Mixture : Technical concentrate used in the manufacture of biocidal products.
Conservation agent (preservative) for cosmetics

1.3 Details of the supplier of the safety data sheet

Company : Janssen Pharmaceutica NV
Turnhoutseweg 30
2340 Beerse
Belgium
Telephone : +3214602111
Telefax : +3214602841
E-mail address :
Responsible/issuing person : SDSJanssen@its.jnj.com

1.4 Emergency telephone number +32 14 60 24 44

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity , Category 4	H302: Harmful if swallowed.
Serious eye damage , Category 1	H318: Causes serious eye damage.
Acute toxicity , Category 4	H332: Harmful if inhaled.
Acute aquatic toxicity , Category 1	H400: Very toxic to aquatic life.
Chronic aquatic toxicity , Category 1	H410: Very toxic to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Harmful	R22: Harmful if swallowed.
Toxic	R23: Toxic by inhalation.
Irritant	R41: Risk of serious damage to eyes.
Dangerous for the environment	R50: Very toxic to aquatic organisms.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms

:



Signal word

:

Danger

Hazard statements

:

H302
H318
H332
H410

Harmful if swallowed.
Causes serious eye damage.
Harmful if inhaled.
Very toxic to aquatic life with long lasting effects.

Precautionary statements

:

Prevention:

P261
P273
P280

Avoid breathing vapours.
Avoid release to the environment.
Wear protective gloves/ protective clothing/
eye protection/ face protection.

Response:

P301 + P312

IF SWALLOWED: Call a POISON CENTER
or doctor/ physician if you feel unwell.

P304 + P340

IF INHALED: Remove victim to fresh air
and keep at rest in a position comfortable
for breathing.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with
water for several minutes. Remove contact
lenses, if present and easy to do. Continue
rinsing.

2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

Zinc, bis[1-(hydroxy-
.kappa.O)-2(1H)-
pyridinethionato-.kappa.S2]-,
(T-4)- : This substance is not considered to be persistent,
bioaccumulating and toxic (PBT).

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Aqueous solution

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Zinc, bis[1-(hydroxy- .kappa.O)-2(1H)-	13463-41-7 236-671-3	Xn; R22 T; R23	Acute Tox.3; H301 Eye Dam.1; H318	>= 25 - < 50

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pyridinethionato- .kappa.S2]-, (T-4)-		Xi; R41 N; R50	Acute Tox.3; H331 Aquatic Acute1; H400 Aquatic Chronic1; H410	
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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | |
|-------------------------|---|
| If inhaled | : If breathed in, move person into fresh air.
If symptoms persist, call a physician. |
| In case of skin contact | : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician. |
| In case of eye contact | : Rinse immediately with plenty of water, also under the eyelids,
for at least 15 minutes.
Remove contact lenses.
Consult a physician. |
| If swallowed | : If swallowed, rinse mouth with water (only if the person is
conscious).
Do not induce vomiting unless instructed to do so by medical
personnel. If vomiting occurs the head should be kept low so
that vomit does not enter the lungs.
Call a physician immediately. |

4.2 Most important symptoms and effects, both acute and delayed

- | | |
|----------|---------------------|
| Symptoms | : Causes eye burns. |
|----------|---------------------|

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|-----------|--------------------------|
| Treatment | : Treat symptomatically. |
|-----------|--------------------------|

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | |
|-----------------------------------|---|
| Suitable extinguishing media | : Water mist, Dry powder, Foam, Carbon dioxide (CO ₂), Sand,
Aqueous film forming foam (AFFF). |
| Unsuitable extinguishing
media | : Water spray jet |

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5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Heating can release hazardous gases. Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Firefighters must wear fire resistant personal protective equipment.

Further information : In the event of fire, cool tanks with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.
Refer to protective measures listed in sections 7 and 8.
Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : Should not be released into the environment.
Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Keep in properly labelled containers.
Keep in suitable, closed containers for disposal.
Treat recovered material as described in the section "Disposal considerations".
Dam up.
Soak up with inert absorbent material.
Prevent product from entering drains.

6.4 Reference to other sections

For personal protection see section 8., For disposal information, see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : To avoid thermal decomposition, do not overheat. For personal protection see section 8.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

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Requirements for storage areas and containers

: To maintain product quality, do not store in heat or direct sunlight. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep away from food, drink and animal feedingstuffs. Store at room temperature. Do not store in the refrigerator or freezer.

7.3 Specific end use(s)

Specific use(s)

: Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)-	13463-41-7	TWA	2,5 mg/m ³		J&J OEL/PBOEL HHC
Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)-	13463-41-7	PBOEL-HHC	1 A		J&J OEL/PBOEL HHC
Further information		J&J has a hazard banding notation: PBOEL HHC. This substance is classified by J&J as being PBOEL HHC 1A.			

DNEL

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)-

: End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
0,01 mg/kg

8.2 Exposure controls

Engineering measures

Engineering controls should be used as the primary means to control possible exposures. Use process enclosures, local exhaust ventilation or other engineering controls to keep exposure levels below recommended exposure limits.

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Personal protective equipment

Hand protection

Remarks : Impervious gloves Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Skin and body protection : closed work clothing
impervious clothing

Respiratory protection : Respirator with a vapour filter (EN 141)
ABEK-filter
Wear a self-contained breathing apparatus in all circumstances when the mask and cartridge do not give adequate protection (e.g. : medium confinement/insufficient oxygen/in case of large uncontrolled emissions).
Use only respiratory protection that conforms to international/national standards.
Engineering controls should always be the primary method of controlling exposures.
If respiratory protective equipment is needed for certain activities, the type as well as the corresponding protection factor will depend upon the risk assessment and air concentrations, hazards, physical and warning properties of substances present.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Environmental exposure controls

General advice : Should not be released into the environment.
Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : white

Odour : characteristic

Odour Threshold : No data available

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pH	: No data available
Melting point/range	: No data available
Boiling point/boiling range	: 100 °C (1 013 mbar)
Flash point	: not applicable
Evaporation rate	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: No data available
Solubility(ies)	
Water solubility	: dispersible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: The product is not flammable.
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive (not expected to be explosive based on components)
Oxidizing properties	: Not oxidising (not expected to be oxidising based on components)

9.2 Other information

Conductivity : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

None reasonably foreseeable.

10.2 Chemical stability

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Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : To avoid thermal decomposition, do not overheat.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon monoxide
Nitrogen oxides (NO_x)
Sulphur oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product

Acute oral toxicity : No data available

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Acute oral toxicity : LD50 Oral rat: 269 mg/kg

Acute inhalation toxicity : LC50 rat, male: 0,83 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

LC50 rat, female: 1,34 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 rat: > 2 000 mg/kg

LD50 rabbit: > 2 000 mg/kg

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Skin corrosion/irritation

Product

No data available

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Species: rabbit

Exposure time: 4 h

Result: No skin irritation

Method: OECD Test Guideline 404

Serious eye damage/eye irritation

Product

No data available

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Species: rabbit

Result: Corrosive to eyes

Respiratory or skin sensitisation

Product

No data available

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Test Method: Maximisation Test (GPMT)

Species: guinea pig

Result: Not a sensitizer

Germ cell mutagenicity

Product

Genotoxicity in vivo : No data available

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Germ cell mutagenicity- : Animal testing did not show any mutagenic effects.

Assessment

Carcinogenicity

Product

Remarks: No data available

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Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :
Carcinogenicity - : Animal testing did not show any carcinogenic effects.
Assessment

Reproductive toxicity

Toxicity to reproduction/fertility

Product

No data available

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :
Reproductive toxicity - : In animal testing, risk of impaired fertility was shown only after
Assessment administration of very high doses of this substance.

Reprod.Tox./Development/Teratogenicity

Product

No data available

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :
Teratogenicity - Assessment : No evidence of adverse effects on development.

STOT - single exposure

Product

Remarks: No data available

STOT - repeated exposure

Product

Remarks: No data available

Repeated dose toxicity

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :
rat, male and female: NOAEL: 0,5 mg/kg

Application Route: Oral
Exposure time: 104 W

rat, male and female: NOAEL: 0,002 mg/l

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Application Route: Inhalation

Exposure time: 21 d

Aspiration toxicity

No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0,0026 mg/l

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0,0082 mg/l

aquatic invertebrates

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 0,028 mg/l

NOEC (Skeletonema costatum): 0,00046 mg/l

Exposure time: 120 h

M-Factor : 100

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product:

Biodegradability : No data available

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Biodegradability : Result: Biodegradable

12.3 Bioaccumulative potential

Product:

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

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Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Bioaccumulation : Does not bioaccumulate.

Partition coefficient: n- : log Pow: 0,883
octanol/water

12.4 Mobility in soil

Product:

Stability in soil : No data available

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Stability in soil : Adsorbs on soil.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

12.6 Other adverse effects

Product:

Additional ecological : No data available
information

Components:

Zinc, bis[1-(hydroxy-.kappa.O)-2(1H)-pyridinethionato-.kappa.S2]-, (T-4)- :

Environmental fate and : No data available
pathways

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of wastes in an approved waste disposal facility.
In accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number

ADR : 3082
RID : 3082

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IMDG : 3082

IATA : 3082

14.2 Proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(pyrithione zinc)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(pyrithione zinc)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(pyrithione zinc)

IATA : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(pyrithione zinc)

14.3 Transport hazard class

ADR : 9

RID : 9

IMDG : 9

IATA : 9

14.4 Packing group

ADR

Packaging group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : (E)

RID

Packaging group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

IMDG

Packaging group : III
Labels : 9
EmS Number : F-A, S-F

IATA

Packing instruction (CAO) : 964
Packing instruction (PAX and CAO) : 964
Packing instruction (LQ) : Y964
Packaging group : III
Labels : 9

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

RID

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Environmentally hazardous : yes

IMDG

Marine pollutant : yes

IATA

Environmentally hazardous : yes

14.6 Special precautions for user

For personal protection see section 8.

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

No data available

SECTION 15: Regulatory information

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

Major Accident Hazard Legislation

96/82/EC

: Update: 2003
Dangerous for the
environment

Quantity1
100 t

Quantity2
200 t

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not applicable (mixture)

SECTION 16: Other information

Full text of R-Phrases

R22	Harmful if swallowed.
R23	Toxic by inhalation.
R41	Risk of serious damage to eyes.
R50	Very toxic to aquatic organisms.

Full text of H-Statements

H301	Toxic if swallowed.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

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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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.