

PERIODIC ACID FOR SYNTHESIS MSDS

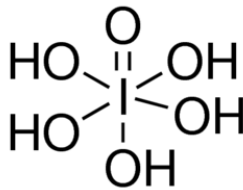
CAS-No.: 10450-60-9 MSDS

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form : Substance
:
CAS-No. : 10450-60-9
Product code : 05155
Chemical structure :



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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Oxidising Solids, H272
Category 2
Skin corrosion/irritation, H314
Category 1

Full text of H statements : see section 16

PERIODIC ACID FOR SYNTHESIS

Safety Data Sheet

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

O; R8

C; R34

Full text of R-phrases: 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) :



GHS03

GHS05

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H272 - May intensify fire; oxidiser.
H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) :

P220 - Keep/Store away from clothing and other combustible materials.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : PERIODIC ACID FOR SYNTHESIS

CAS-No. : 10450-60-9

Full text of R- and H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

PERIODIC ACID FOR SYNTHESIS

Safety Data Sheet

- First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

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

- Symptoms/effects : Causes severe skin burns and eye damage.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).
- Unsuitable extinguishing media : Do not use extinguishing media containing water.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Avoid contact with skin and eyes.

6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Stop release.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Clean up immediately by sweeping or vacuum.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in original container. Store in a dry place. Protect from moisture.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

PERIODIC ACID FOR SYNTHESIS

Safety Data Sheet

8.2. Exposure controls

Hand protection	: Protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Molecular mass	: 227.94 g/mol
Colour	: White crystalline.
Odour	: slight characteristic odor.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 122 °C
Freezing point	: No data available
Boiling point	: 1300 - 1400
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: 7.9
Relative density	: No data available
Solubility	: Water: Soluble in water
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: The substance or mixture is classified as oxidizing with the subcategory 2.
Explosive limits	: No data available

9.2. Other information

No additional information available

PERIODIC ACID FOR SYNTHESIS

Safety Data Sheet

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

No additional information available

10.4. Conditions to avoid

Air contact. Direct sunlight. Moisture. Open flame. Overheating.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

PERIODIC ACID FOR SYNTHESIS

Safety Data Sheet

12.3. Bioaccumulative potential

No additional information available

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

No additional information available

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR)	: 3085
UN-No. (IMDG)	: 3085
UN-No. (IATA)	: 3085
UN-No. (ADN)	: 3085
UN-No. (RID)	: 3085

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: OXIDIZING SOLID, CORROSIVE, N.O.S.
Proper Shipping Name (IMDG)	: OXIDIZING SOLID, CORROSIVE, N.O.S.
Proper Shipping Name (IATA)	: Oxidizing solid, corrosive, n.o.s.
Proper Shipping Name (ADN)	: OXIDIZING SOLID, CORROSIVE, N.O.S.
Proper Shipping Name (RID)	: OXIDIZING SOLID, CORROSIVE, N.O.S.
Transport document description (ADR)	: UN 3085 OXIDIZING SOLID, CORROSIVE, N.O.S., 5.1 (8), II, (E)
Transport document description (IMDG)	: UN 3085 OXIDIZING SOLID, CORROSIVE, N.O.S., 5.1 (8), II
Transport document description (IATA)	: UN 3085 Oxidizing solid, corrosive, n.o.s., 5.1, II
Transport document description (ADN)	: UN 3085 OXIDIZING SOLID, CORROSIVE, N.O.S., 5.1 (8), II
Transport document description (RID)	: UN 3085 OXIDIZING SOLID, CORROSIVE, N.O.S., 5.1 (8), II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 5.1 (8)
Danger labels (ADR)	: 5.1, 8



IMDG

Transport hazard class(es) (IMDG)	: 5.1 (8)
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PERIODIC ACID FOR SYNTHESIS

Safety Data Sheet

Danger labels (IMDG) : 5.1, 8



IATA

Transport hazard class(es) (IATA) : 5.1 (8)

Hazard labels (IATA) : 5.1, 8



ADN

Transport hazard class(es) (ADN) : 5.1 (8)

Danger labels (ADN) : 5.1, 8



RID

Transport hazard class(es) (RID) : 5.1 (8)

Danger labels (RID) : 5.1, 8



14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : OC2

Special provisions (ADR) : 274

Limited quantities (ADR) : 1kg

Excepted quantities (ADR) : E2

PERIODIC ACID FOR SYNTHESIS

Safety Data Sheet

Packing instructions (ADR)	: P002, IBC06
Mixed packing provisions (ADR)	: MP2
Portable tank and bulk container instructions (ADR)	: T3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAN
Tank special provisions (ADR)	: TU3
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V11
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV24
Hazard identification number (Kemler No.)	: 58
Orange plates	:



Tunnel restriction code (ADR)	: E
EAC code	: 1W

- Transport by sea

Special provisions (IMDG)	: 274
Packing instructions (IMDG)	: P002
IBC packing instructions (IMDG)	: IBC06
IBC special provisions (IMDG)	: B21
Tank instructions (IMDG)	: T3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-Q
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: H1
Segregation (IMDG)	: SG38, SG49, SG60
Properties and observations (IMDG)	: Causes burns to skin, eyes and mucous membranes. Particular care in handling should be exercised if packages have become wetted.
MFAG-No	: 140

- Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y544
PCA limited quantity max net quantity (IATA)	: 2.5kg
PCA packing instructions (IATA)	: 558
PCA max net quantity (IATA)	: 5kg
CAO packing instructions (IATA)	: 562
CAO max net quantity (IATA)	: 25kg
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 5C

- Inland waterway transport

Classification code (ADN)	: OC2
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 1 kg
Excepted quantities (ADN)	: E2
Equipment required (ADN)	: PP, EP

PERIODIC ACID FOR SYNTHESIS

Safety Data Sheet

Number of blue cones/lights (ADN) : 0

- Rail transport

Classification code (RID) : OC2
Special provisions (RID) : 274
Excepted quantities (RID) : E2
Packing instructions (RID) : P002, IBC06
Mixed packing provisions (RID) : MP2
Portable tank and bulk container instructions (RID) : T3
Portable tank and bulk container special provisions (RID) : TP33
Tank codes for RID tanks (RID) : SGAN
Special provisions for RID tanks (RID) : TU3
Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W11
Special provisions for carriage - Loading, unloading and handling (RID) : CW24
Colis express (express parcels) (RID) : CE10
Hazard identification number (RID) : 58

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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

No REACH Annex XVII restrictions

PERIODIC ACID FOR SYNTHESIS is not on the REACH Candidate List

PERIODIC ACID FOR SYNTHESIS is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

PERIODIC ACID FOR SYNTHESIS

Safety Data Sheet

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Ox. Sol. 2	Oxidising Solids, Category 2
Skin Corr. 1	Skin corrosion/irritation, Category 1
H272	May intensify fire; oxidiser.
H314	Causes severe skin burns and eye damage.
R34	Causes burns
R8	Contact with combustible material may cause fire
C	Corrosive
O	Oxidising

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