# **APS**



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

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

1.1 Product identifier

Trade name : APS

REACH Registration Number : 01-2119495973-19-0000

Substance name : Ammonium Persulfate

Index-No. : 016-060-00-6

EC-No. : 231-786-5

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

Use of the Sub- : Oxidizing agents, polymerisation initiators

stance/Mixture

1.3 Details of the supplier of the safety data sheet

Company : United Initiators GmbH

Dr.-Gustav-Adolph-Str. 3

82049 Pullach

Telephone : +49 / 89 / 74422 - 0

E-mail address of person

responsible for the SDS

: contact@united-in.com

## 1.4 Emergency telephone number

+44 1235 239670

#### **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

# Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Oxidizing solids, Category 3 H272: May intensify fire; oxidizer.

Acute toxicity, Category 4 H302: Harmful if swallowed.

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Respiratory sensitisation, Category 1 H334: May cause allergy or asthma symptoms or

breathing difficulties if inhaled.

# **APS**



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

Specific target organ toxicity - single exposure, Category 3, Respiratory system

H335: May cause respiratory irritation.

#### 2.2 Label elements

# Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms







Signal word : Danger

Hazard statements : H272 May intensify fire; oxidizer.

H302 Harmful if swallowed.H315 Causes skin irritation.

H317 May cause an allergic skin reaction.H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

H335 May cause respiratory irritation.

# Precautionary statements : Prevention:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P220 Keep/ Store away from clothing/ combustible materials.

P232 Protect from moisture.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

#### Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

P362 + P364 Take off contaminated clothing and wash it

before reuse.

P370 + P378 In case of fire: Use water spray to extinguish.

**APS** 



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

#### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Substance name : Ammonium Persulfate

Index-No. : 016-060-00-6

EC-No. : 231-786-5

Chemical nature : Persulphate

Solid

## Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)
Ammonium persulphate	7727-54-0	<= 100
	231-786-5	

## **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

Symptoms of poisoning may appear several hours later.

Call a physician immediately.

Protection of first-aiders : First Aid responders should pay attention to self-protection

and use the recommended protective clothing

If inhaled : Call a physician or poison control centre immediately.

If unconscious, place in recovery position and seek medical

advice.

Keep respiratory tract clear.

If breathed in, move person into fresh air.

In case of skin contact : In case of contact, immediately flush skin with plenty of water

**APS** 



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

for at least 15 minutes while removing contaminated clothing

and shoes.

Wash contaminated clothing before re-use.

If on skin, rinse well with water.
If on clothes, remove clothes.
If symptoms persist, call a physician.

In case of eye contact : In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.

Call a physician immediately. Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Harmful if swallowed.

Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficul-

ties if inhaled.

May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically and supportively.

## **SECTION 5: Firefighting measures**

### 5.1 Extinguishing media

Suitable extinguishing media : Water spray jet

Foam

Unsuitable extinguishing

media

High volume water jet

#### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

: Contact with incompatible materials or exposure to temperatures exceeding SADT may result in a self-accelerating de-

composition reaction with release of flammable vapors which

may auto-ignite.

Cool closed containers exposed to fire with water spray.

**APS** 



Version Revision Date: SDS Number: Date of last issue: 21.03.2023 60000000004 1.3 23.03.2023 Date of first issue: 02.02.2022

5.3 Advice for firefighters

for firefighters

Special protective equipment : Wear self-contained breathing apparatus for firefighting if nec-

essary. Use personal protective equipment.

Specific extinguishing meth-

ods

Do not use a solid water stream as it may scatter and spread

Remove undamaged containers from fire area if it is safe to do

Use water spray to cool unopened containers.

Suppress (knock down) gases/vapours/mists with a water

spray jet.

Further information Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

#### **SECTION 6: Accidental release measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment.

Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Remove all sources of ignition.

Follow safe handling advice and personal protective equip-

ment recommendations.

Never return spills in original containers for re-use.

Treat recovered material as described in the section "Disposal

considerations".

## 6.2 Environmental precautions

Environmental precautions Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

## 6.3 Methods and material for containment and cleaning up

Methods for cleaning up Contact with incompatible substances can cause decomposi-

> tion at or below SADT. Clear spills immediately.

Suppress (knock down) gases/vapours/mists with a water

spray jet.

To clean the floor and all objects contaminated by this materi-

al, use plenty of water.

Soak up with inert absorbent material.

**APS** 



Version 1.3

Revision Date: 23.03.2023

SDS Number: 60000000004

Date of last issue: 21.03.2023 Date of first issue: 02.02.2022

Isolate waste and do not reuse. Non-sparking tools should be used.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

#### 6.4 Reference to other sections

For personal protection see section 8.

## **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

Advice on safe handling : Do not swallow.

Do not breathe vapours/dust.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes.

Take precautionary measures against static discharges. Never return any product to the container from which it was

originally removed.

Provide sufficient air exchange and/or exhaust in work rooms.

Avoid confinement.

Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Wash thoroughly after handling. For personal protection see section 8.

Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being

used.

Protect from contamination. Protect from moisture.

Advice on protection against

fire and explosion

Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from combustible

material.

Hygiene measures : Keep away from food and drink. When using do not eat or

drink. When using do not smoke. Wash hands before breaks

and immediately after handling the product.

## 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Avoid impurities (e.g. rust, dust, ash), risk of decomposition. Electrical installations / working materials must comply with the technological safety standards. Containers which are

**APS** 



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

opened must be carefully resealed and kept upright to prevent leakage. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep in a dry place. Store in accordance with the particular national regulations.

Advice on common storage : Keep away from strong acids, bases, heavy metal salts and

other reducing substances.

Recommended storage tem-

perature

< 30 °C

Further information on stor-

age stability

No decomposition if stored normally.

7.3 Specific end use(s)

Specific use(s) : For further information, refer to the product technical data

sheet.

# **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

Contains no substances with occupational exposure limit values.

## Derived No Effect Level (DNEL):

Substance name	End Use	Exposure routes	Potential health ef-	Value
			fects	
Ammonium persul-	Workers	Inhalation	Long-term local ef-	0.824 mg/m3
phate			fects	
	Workers	Skin contact	Long-term systemic	9.5 mg/kg
			effects	bw/day
	Consumers	Inhalation	Long-term local ef-	0.421 mg/m3
			fects	
	Consumers	Skin contact	Long-term systemic	4.8 mg/kg
			effects	bw/day
	Consumers	Ingestion	Long-term systemic	0.47 mg/kg
			effects	bw/day
	Consumers	Ingestion	Acute systemic ef-	1.41 mg/kg
			fects	bw/day

# Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment	Value
Ammonium persulphate	Fresh water	0.518 mg/l
	Intermittent use/release	0.763 mg/l
	Marine water	0.052 mg/l
	Sewage treatment plant	3.6 mg/l
	Fresh water sediment	2.03 mg/kg dry weight (d.w.)
	Marine sediment	0.203 mg/kg dry weight (d.w.)

**APS** 



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

Soil 0.1 mg/kg dry weight (d.w.)

## 8.2 Exposure controls

### **Engineering measures**

Minimize workplace exposure concentrations.

## Personal protective equipment

Eye protection : Tightly fitting safety goggles

Please wear suitable protective goggles. Also wear face pro-

tection if there is a splash hazard.

Ensure that eyewash stations and safety showers are close to

the workstation location.

Please follow all applicable local/national requirements when

selecting protective measures for a specific workplace.

Hand protection

Material : butyl-rubber
Break through time : 480 min
Glove thickness : 0.47 mm

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0.40 mm

Remarks : The data about break through time/strength of material are

standard values! The exact break through time/strength of material has to be obtained from the producer of the protective glove. Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of

workday.

Skin and body protection : Select appropriate protective clothing based on chemical re-

sistance data and an assessment of the local exposure poten-

tial.

Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable

suits) to avoid exposed skin surfaces.

Wear as appropriate:

Flame retardant antistatic protective clothing.

Respiratory protection : In the case of dust or aerosol formation use respirator with an

approved filter.

Filter type : Filter type P

**APS** 



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

Protective measures : The type of protective equipment must be selected according

to the concentration and amount of the dangerous substance

at the specific workplace.

# **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

Appearance : crystalline

Colour : white

Odour : odourless

Odour Threshold : not determined

pH : 4

Concentration: ca. 10 g/l

Melting point/freezing point : Decomposition: Decomposes below the melting point.

Initial boiling point and boiling

range

Not applicable

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : Not expected to form explosive dust-air mixtures.

Upper explosion limit / Upper

flammability limit

Upper explosion limit No data available

Lower explosion limit / Lower

flammability limit

Vapour pressure

: Lower explosion limit

No data available < 0.001 hPa (25 °C)

Relative vapour density : not determined

Relative density : not determined

Density : not determined

Bulk density : 1,100 kg/m3 (20 °C)

Solubility(ies)

Water solubility : 850 g/l soluble (25 °C)

Partition coefficient: n-

octanol/water

Not applicable

**APS** 



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

Auto-ignition temperature : Not applicable

Decomposition

Viscosity

Viscosity, dynamic : Not applicable

Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is classified as oxidizing with the

category 3.

9.2 Other information

Self-Accelerating decomposi-

tion temperature (SADT)

130 °C

Method: UN-Test H.4

SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a

self-accelerating decomposition reaction.

Self-heating substances : The substance or mixture is not classified as self heating.

Molecular weight : 228.2 g/mol

Particle size : not determined

Particle Size Distribution :  $D10 = 183 \mu m$ 

Type of distribution: volume distribution Measurement technique: laser diffraction

Self-ignition : The substance or mixture is not classified as pyrophoric.

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Stable under recommended storage conditions.

## 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : Avoid moisture.

Even small amounts of moisture or impurities can noticably reduce the self-accelerating decomposition temperature

(SADT).

10.4 Conditions to avoid

Conditions to avoid : Contact with incompatible substances can cause decomposi-

**APS** 



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

tion at or below SADT.

Even small amounts of moisture or impurities can noticably reduce the self-accelerating decomposition temperature

(SADT).

10.5 Incompatible materials

Materials to avoid : Accelerators, strong acids and bases, heavy metals and

heavy metal salts, reducing agents

10.6 Hazardous decomposition products

Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and

decomposition

**SECTION 11: Toxicological information** 

11.1 Information on toxicological effects

Acute toxicity

Harmful if swallowed.

**Product:** 

Acute oral toxicity : LD50 (Rat, male): 742 mg/kg

Method: OECD Test Guideline 401

**Components:** 

Ammonium persulphate:

Acute oral toxicity : LD50 (Rat, male): 742 mg/kg

Method: OECD Test Guideline 401

Assessment: The component/mixture is moderately toxic after

single ingestion.

Remarks: Based on test data

Acute inhalation toxicity : LC50 (Rat): > 5.1 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Expert judgement

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Expert judgement

Skin corrosion/irritation

Causes skin irritation.

# **APS**



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

**Product:** 

Species : Rabbit

Method : OECD Test Guideline 404

Result : Skin irritation

Remarks : May cause skin irritation in susceptible persons.

**Components:** 

Ammonium persulphate:

Species : Rabbit

Method : OECD Test Guideline 404

Result : Skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

**Product:** 

Remarks : May cause irreversible eye damage.

Species : Rabbit

Method : OECD Test Guideline 405

Result : Irritating to eyes.

**Components:** 

Ammonium persulphate:

Species : Rabbit

Method : OECD Test Guideline 405

Result : Irritating to eyes.

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Product:** 

Remarks : Causes sensitisation.

Exposure routes : Skin contact Species : Guinea pig

Method : OECD Test Guideline 406

Result : May cause sensitisation by skin contact.

Exposure routes : inhalation (dust/mist/fume)

Result : May cause sensitisation by inhalation.

# **APS**



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

## **Components:**

## Ammonium persulphate:

Exposure routes : Skin contact Species : Guinea pig

Method : OECD Test Guideline 406

Result : May cause sensitisation by skin contact.

Exposure routes : inhalation (dust/mist/fume)

Result : May cause sensitisation by inhalation.

## Germ cell mutagenicity

Not classified based on available information.

#### **Components:**

## Ammonium persulphate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Genotoxicity in vivo : Species: Mouse

Application Route: Intraperitoneal Method: OECD Test Guideline 474

Result: negative

## Carcinogenicity

Not classified based on available information.

## **Components:**

## Ammonium persulphate:

Species : Mouse
Application Route : Skin contact
Exposure time : 52 weeks

Method : OECD Test Guideline 451

Result : negative

## Reproductive toxicity

Not classified based on available information.

## **Components:**

## Ammonium persulphate:

Effects on fertility : Species: Rat

Application Route: Ingestion

General Toxicity - Parent: NOAEL: >= 250 mg/kg body weight General Toxicity F1: NOAEL: >= 250 mg/kg body weight

Method: OECD Test Guideline 421

# **APS**



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

STOT - single exposure

May cause respiratory irritation.

**Product:** 

Assessment : May cause respiratory irritation.

**Components:** 

Ammonium persulphate:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

**Components:** 

Ammonium persulphate:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Repeated dose toxicity

**Components:** 

Ammonium persulphate:

Species : Rat

NOAEL : 1,000 mg/kg LOAEL : 3,000 mg/kg Application Route : Ingestion

Exposure time : 90 d

Method : OECD Test Guideline 408

Species : Rat

NOAEL : 41.1 mg/kg Application Route : oral (feed)

Exposure time : 28 d

Method : OECD Test Guideline 407

Species : Rat

NOAEL : 0.0103 mg/l

Application Route : inhalation (dust/mist/fume)
Method : OECD Test Guideline 413

Species : Rat

: 0.005 mg/l

Application Route : inhalation (dust/mist/fume)
Method : OECD Test Guideline 413

Aspiration toxicity

Not classified based on available information.

**APS** 



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

**Further information** 

**Product:** 

Remarks : No data available

**SECTION 12: Ecological information** 

12.1 Toxicity

Components:

Ammonium persulphate:

Toxicity to fish : LC50 (Scophthalmus maximus (turbot)): 107.6 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 120 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Phaeodactylum): 320 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Phaeodactylum): 32 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to microorganisms : EC10 (Pseudomonas putida): 36 mg/l

Exposure time: 18 h

12.2 Persistence and degradability

**Components:** 

Ammonium persulphate:

Biodegradability : Remarks: The methods for determining biodegradability are

not applicable to inorganic substances.

12.3 Bioaccumulative potential

**Components:** 

Ammonium persulphate:

Partition coefficient: n-

octanol/water

: Remarks: Not applicable

12.4 Mobility in soil

No data available

**APS** 



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

#### 12.5 Results of PBT and vPvB assessment

**Product:** 

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

12.6 Other adverse effects

**Product:** 

Additional ecological infor-

mation

: No data available

# **SECTION 13: Disposal considerations**

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

Dispose of in accordance with local regulations.

## **SECTION 14: Transport information**

14.1 UN number

ADR : UN 1444
RID : UN 1444
IMDG : UN 1444
IATA : UN 1444

14.2 UN proper shipping name

ADR : AMMONIUM PERSULPHATE

RID : AMMONIUM PERSULPHATE

IMDG : AMMONIUM PERSULPHATE

IATA : Ammonium persulphate

# **APS**



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

## 14.3 Transport hazard class(es)

ADR : 5.1

RID : 5.1

IMDG : 5.1

IATA : 5.1

#### 14.4 Packing group

**ADR** 

Packing group : III
Classification Code : O2
Hazard Identification Number : 50
Labels : 5.1
Tunnel restriction code : (E)

**RID** 

Packing group : III
Classification Code : O2
Hazard Identification Number : 50
Labels : 5.1

**IMDG** 

Packing group : III
Labels : 5.1
EmS Code : F-A, S-Q

2....0 0000

IATA (Cargo)

Packing instruction (cargo : 563

aircraft)

Packing instruction (LQ) : Y546
Packing group : III
Labels : Oxidizer

IATA (Passenger)

Packing instruction (passen: 559

ger aircraft)

Packing instruction (LQ) : Y546
Packing group : III
Labels : Oxidizer

## 14.5 Environmental hazards

**ADR** 

Environmentally hazardous : no

rid

Environmentally hazardous : no

**IMDG** 

Marine pollutant : no

# 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data

**APS** 



Version Revision Date: SDS Number: Date of last issue: 21.03.2023 1.3 23.03.2023 60000000004 Date of first issue: 02.02.2022

Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances,

preparations and articles (Annex XVII)

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import

of dangerous chemicals

UK REACH List of substances subject to authorisation

(Annex XIV)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of

major-accident hazards involving dangerous substances.

Quantity 1

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

Quantity 2

P8 OXIDIZING LIQUIDS AND 50 t

200 t

**SOLIDS** 

The components of this product are reported in the following inventories:

TCSI (TW) On the inventory, or in compliance with the inventory

TSCA (US) All substances listed as active on the TSCA inventory

AIIC (AU) On the inventory, or in compliance with the inventory

DSL (CA) All components of this product are on the Canadian DSL

ENCS (JP) On the inventory, or in compliance with the inventory

# **APS**



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

ISHL (JP) : On the inventory, or in compliance with the inventory

KECI (KR) : On the inventory, or in compliance with the inventory

PICCS (PH) : On the inventory, or in compliance with the inventory

IECSC (CN) : On the inventory, or in compliance with the inventory

NZIoC (NZ) : On the inventory, or in compliance with the inventory

TECI (TH) : On the inventory, or in compliance with the inventory

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance. For further information see eSDS.

#### **SECTION 16: Other information**

#### **Further information**

Other information : This safety datasheet only contains information relating to

safety and does not replace any product information or prod-

uct specification.

These safety instructions also apply to empty packaging which

may still contain product residues.

Sources of key data used to

compile the Safety Data

Sheet

Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

cy, http://echa.europa.eu/

## Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organiza-

# **APS**



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 21.03.2023

 1.3
 23.03.2023
 600000000004
 Date of first issue: 02.02.2022

tion; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL -International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance: PICCS - Philippines Inventory of Chemicals and Chemical Substances: (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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.

GB/EN