

According to directive 1907/2006/EC, 2020/878
Version 2.0 Revision date: 24-03-2025
Trade name: A1 Pigment Orange

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

1.1 Product identification:

Product name: A1 Pigment Orange
the product contains nanoparticles

Registration number (REACH): not relevant (mixture)

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

Usage: Aqueous dispersion
Pigment
A1 Liquid/Powder system
Professional use
Consumer use

1.3 Details of the supplier of the safety data sheet:

Responsible distributor : ASSYST bvba / A.S.O.W. bvba
Hellegatstraat 13a
2590 Berlaar
Belgium
Tel: +32 495 50 61 14 / +32 496 83 70 27
Website: www.assyst.org / www.artsuppliesonweb.com
E-mail: ao@assyst.org / vera.opsommer@assyst.org

1.4 Emergency phone number:

For Belgium: Call the **Poison Control Centre (070 245 245 - free)**, if not available: **02 264 96 30** (normal rate) or your doctor. In life-threatening situations, always call the European emergency number **112**.

NHS 24 Direct For help from a GP, visit your GP surgery's website, use an online service to contact your GP, or call the surgery. **For urgent medical help**, use the NHS 111 online service, or **call 111** if you are unable to get help online. **For life-threatening emergencies, call 999** for an ambulance. There is more information about getting medical help on the NHS website.

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

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

This mixture does not meet the criteria for classification according to Regulation No 1272/2008/EC.

2.2 Labelling elements:

Labelling in accordance with Regulation (EC) No 1272/2008 (CLP)

Signal word: Not required.

Pictograms: Not required.

Additional information:

EUH208 Contains 1,2-benzisothiazole-3(2H)-one. May cause an allergic reaction.

EUH210 Safety data sheet available on request.

2.3 Other hazards:

Results of PBT and vPvB assessment

Does not contain any PBT/vPvB substance at a concentration of $\geq 0.1\%$.

Endocrine-disrupting properties

Contains no endocrine disruptor (ED) at a concentration of $\geq 0.1\%$.

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SECTION 3: Composition and information on ingredients

3.2 Mixtures:

The product does not contain any (additional) ingredients that are classified according to the supplier's current knowledge and contribute to the classification of the product and should therefore be mentioned in this section.

Content	CAS/EC/Index/REACH	Classification	Nuts	Weight %
1,2-Benzisothiazol-3(2H)-one	CAS no: 2634-33-5 EC No: 220-120-9 Index-No.: 613-088-00-6 REACH No: 01-2120761540-60	Acute Tox. 4 / H302 Acute Tox. 2 / H330 Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Skin Sens. 1A / H317 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410 Specific concentration limits Skin Sens. 1A; H317: C ≥ 0.036 %. M-Factor (acute) = 1. M-Factor (chronic) = 1. 450 mg/kg 0.21 mg/l/4h. Oral inhalation: dust/mist	GHS-HC	< 0,05

Nuts

GHS-HC: harmonised classification (the classification of the substance is according to the annotation in accordance with 1272/2008/EC, Annex VI).

Comments

All percentages stated are percentages by weight unless otherwise stated.
See SECTION 16 for the full text of H-statements (hazard statements).

Nanomaterial:

C.I. pigment Yellow 42
51274-00-1
D10: 30 - 50 nm
D50: 50 - 100 nm
D90: 120 - 200 nm.
Oblong
Ratio: (:1): 4 - 6
Specific surface area 15 - 25 m²/cm³

SECTION 4: First aid measures

4.1 Description of first-aid measures:

General comments

Do not leave the victim unattended.
Move victim out of danger zone.
If unconscious, place victim in stable side position.
Do not administer anything by mouth.
Remove contaminated clothing immediately.
If in doubt or if symptoms persist, consult a doctor.

When inhaled

Provide fresh air.
In case of irregular breathing or respiratory arrest, consult a doctor immediately and administer first aid. In case of respiratory tract irritation, consult a doctor.

In case of skin contact

Wash with plenty of soap and water.
In case of skin irritation or rash: consult a doctor.

On eye contact

Rinse with clean, flowing water for at least 15 minutes while keeping the eyelids open.

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Remove contact lenses, if possible.
Keep rinsing.
In case of persistent eye irritation: consult a doctor.

If swallowed

Rinse mouth with water (only if the person is conscious).
If you feel unwell, consult a doctor.

4.2 Main acute and delayed symptoms and effects:

No symptoms and effects are known so far.

4.3 Indication of immediate medical attention and special treatment required:

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media:

Suitable extinguishing agents

Spray water; Alcohol-resistant foam; Dry extinguishing powder; Carbon dioxide (CO₂); Match firefighting measures to surroundings.

Unsuitable extinguishing agents

Full water jet.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products

Hazardous fumes/smoke may be generated during fire.

5.3 Advice for firefighters:

In case of fire and/or explosion, avoid breathing fumes.
Match fire-fighting measures to environment.
Do not discharge extinguishing water into drains or surface water.
Collect contaminated firefighting water separately.
With normal precautions, extinguish from a reasonable distance.

Specially protected equipment for firefighters

Self-contained breathing apparatus (EN 133).
Standard protective clothing for firefighters.

SECTION 6: Measures in case of accidental release of the substance or mixture

6.1 Personal precautions, protective equipment and emergency procedures:

For persons other than emergency services

Getting people to safety.
Ventilate the affected area.

For emergency services

Wear respirators when exposed to fumes/dust particles/aerosols/gases.
Use the necessary personal protective equipment.

6.2 Environmental precautions:

Avoid getting the product into drains, surface water or groundwater.
Retain and remove contaminated wash water.

6.3 Methods and materials for containment and cleaning:

Advice on how to contain the spill

Covering drains.

Advice on how to clean up the spill

Wipe off with absorbent material (e.g. rag, fleece).

Appropriate containment methods

Use of absorbent materials.

Other information relating to the discharge or release

Put into suitable container for disposal.
Ventilate the affected area.

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6.4 Reference to other sections:

Hazardous combustion products: see section 5.
Personal protective equipment: see section 8.
Incompatible materials: see section 10.
Instructions for disposal: see section 13.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling of the substance or mixture:

Recommendations - measures to prevent fire and aerosol or dust formation

Use of local and general ventilation.

Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use.

Do not eat, drink or smoke in work areas.

Remove contaminated clothing and protective equipment before entering eating areas.

Do not store food and drink together with chemicals.

For chemicals, do not use packaging intended for foodstuffs.

Keep away from food, drink and animal feed.

7.2 Conditions for safe storage, including incompatibilities:

Managing the associated risks - flammability hazard

Keep away from sources of ignition - No smoking.

Take precautions against static electricity discharges.

Managing the associated risks - incompatible substances or mixtures

Keep away from alkalis, oxidising substances, acids.

Managing the consequences

Protect against external exposure, such as

- ✓ High temperatures.
- ✓ UV radiation/sunlight.
- ✓ Frost.

Consideration of other advice

Store in a well-ventilated place.

Keep in tightly closed container.

Specific designs for storage rooms or vessels

Storage temperature:

Minimum storage temperature: >0 °C

Compatible packaging

Keep only in the original packaging.

7.3 Specific end use:

See section 1.2.

SECTION 8: Exposure controls/personal protection measures

8.1 Control parameters:

National limits

No information available.

Relevant DNEL/DMEL/PNEC and other threshold values

relevant DNELs of components in the mixture

1,2-benzisothiazole-3(2H)-one. 2634-33-5.

DNEL. 6.81 mg/m³. Human, via inhalation (Industrial) workers. Chronic - systemic effects.

DNEL. 0.966 mg/kg bw/day. Human, via skin. (Industrial) workers. Chronic - systemic effects.

DNEL. 1.2 mg/m³. Human, by inhalation. Consumers (private households). Chronic - systemic effects.

DNEL. 0.345 mg/kg bw/day. Human, via skin. Consumers (private households). Chronic - systemic effects.

relevant PNECs of components in the mixture

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1,2-benzisothiazole-3(2H)-one. 2634-33-5.

PNEC. 4.03 µg/l. Aquatic organisms. Freshwater. Short-term (one-off).
PNEC. 0.403 µg/l. Aquatic organisms. Sea water. Short-term (one-off).
PNEC. 1.03 mg/l. Aquatic organisms. Sewage treatment plants (STP). Short-term (one-time).
PNEC. 49.9 µg/kg. Aquatic organisms. Freshwater sediment. Short-term (one-time).
PNEC. 4.99 µg/kg. Aquatic organisms. Seawater sediment. Short-term (one-time).
PNEC. 3 mg/kg. Terrestrial organisms. Soil. Short term (one-off).

8.2 Exposure control measures:

Appropriate technical measures

General ventilation.

Provide eye showers and emergency showers in the workplace.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear safety goggles with side protection (EN 166).

Skin protection

Protective clothing (EN 340 & EN ISO 13688).

Hand protection

Wear suitable gloves.

Determine leak tightness/impermeability before use.

It is recommended that in case of special applications, the chemical resistance of the safety gloves mentioned above be checked with the supplier of the gloves.

Suitable are EN 374-tested gloves against chemicals.

The choice of a suitable glove depends not only on the material, but also on other quality characteristics and varies from manufacturer to manufacturer.

As the product is composed of several substances, the durability of the glove materials cannot be calculated in advance and must therefore be tested before use.

material type

Nitrile rubber

Breakthrough time of glove material

Use gloves with a minimum breakthrough time of the glove material: >10 minutes (permeation level: 1).

Other protective equipment

Insert rest periods for skin regeneration.

Preventive skin protection (skin-protective creams) is recommended.

Wash hands thoroughly after use.

Protection of respiratory organs

In case of inadequate ventilation, wear suitable respiratory protection.

Full/half/quarter mask (EN 136/140). P2 (filters at least 94% of air particles, colour code: white).

Managing environmental exposure

Take appropriate measures to prevent uncontrolled release into the environment.

Avoid getting the product into drains, surface water or groundwater.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical state:	liquid
Colour:	orange
Odour:	characteristic
Melting/freezing point:	~0 °C
Boiling point or initial boiling point and boiling range:	~100 °C
Flammability:	non-flammable
Lower and upper explosion limit:	LEL: UEL: not determined
Flash point:	not applicable
Self-ignition temperature:	irrelevant

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Decomposition temperature:	no data available
pH value:	6,5 - 8,5 (20 °C)
Kinematic viscosity:	undetermined
Solubility	
Solubility in water:	miscible in any proportion
Partition coefficient n-octanol/water (log value):	this information is not available
Vapour pressure:	not determined
Density and/or relative density	
Density:	1.9 g/cm ³
Relative vapour density:	no information is available with this property
Particle characteristics:	irrelevant (liquid)
9.2 Other information	
Information on physical hazard classes	
Hazard classes according to GHS (physical hazards):	not relevant
Other safety features	
Miscibility:	Fully miscible with water.

SECTION 10: Stability and reactivity

10.1 Reactivity:

This material is not reactive under normal ambient conditions.

10.2 Chemical Stability:

The material is stable under normal atmospheric conditions and expected temperature and pressure during storage and handling.

10.3 Potential Hazardous Reactions:

No dangerous reactions known.

10.4 Conditions to avoid:

No specific conditions are known to be avoided.

10.5 Chemically Interacting Materials:

Oxidising agents (oxidising).

10.6 Hazardous Decomposition Products:

Known and reasonably foreseeable hazardous decomposition products produced during use, storage, discharge and heating are not known.

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

No test data for the mixture as a whole are available.

Classification procedure

The method of classification of mixtures based on the components of the mixture (sum formula).

Classification according to GHS (1272/2008/EC, CLP)

This mixture does not meet the criteria for classification according to Regulation No 1272/2008/EC.

Acute toxicity

Is not classifiable as acutely toxic.

acute toxicity estimate (ATE) of the components in the mixture

1,2-benzisothiazole-3(2H)-one. 2634-33-5.

Oral. 450 mg/kg.

Inhalation: dust/mist. 0.21 mg/l/4h.

acute toxicity of components in the mixture

1,2-benzisothiazole-3(2H)-one. 2634-33-5.

Oral. LD50. 670 mg/kg. Rat.

Dermal. LD50. >2,000 mg/kg. Rat.

Skin corrosion/irritation

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Is not classifiable as corrosive/irritating to the skin.

Serious eye damage/eye irritation

Cannot be classified as severely eye-injurious or irritating to the eyes.

Respiratory or skin sensitisation

Contains 1,2-benzisothiazole-3(2H)-one.

May cause an allergic reaction.

Mutagenicity in gametes

Is not classifiable as mutagenic in germ cells (mutagenic).

Carcinogenicity

Is not classifiable as carcinogenic.

Reproductive toxicity

Is not classifiable as a reproductive toxicant.

Specific target organ toxicity at single exposure

Cannot be classified as toxic to specific target organs (single exposure).

Specific target organ toxicity on repeated exposure

Cannot be classified as toxic to specific target organs (repeated exposure).

Inhalation hazard

Is not classifiable as dangerous in aspiration.

11.2 Information on other hazards

Endocrine-disrupting properties

Contains no endocrine disruptor (ED) at a concentration of $\geq 0.1\%$.

Other information

There is no further information.

SECTION 12: Ecological information

12.1 Toxicity:

Cannot be classified as hazardous to the aquatic environment.

(acute) aquatic toxicity of components of the mixture

1,2-benzisothiazole-3(2H)-one. 2634-33-5.

LC50. 16.7 mg/l. Fish. 96h.

EC50. 2.94 mg/l. Invertebrate aquatic organisms. 48 h.

ErC50. 150 µg/l. Alg. 72 h.

NOEC. 55 µg/l. Alg. 72 h.

(chronic) aquatic toxicity of components of the mixture

1,2-benzisothiazole-3(2H)-one. 2634-33-5.

EC50. 13 mg/l. Microorganisms. 3 h.

NOEC. 11 mg/l. Microorganisms. 3 h.

12.2 Persistence and Degradability:

No data are available.

12.3 Bioaccumulation:

No data are available.

12.4 Mobility in soil:

No data are available.

12.5 Results of PBT and vPvB assessment:

Does not contain any PBT/vPvB substance at a concentration of $\geq 0.1\%$.

12.6 Endocrine disrupting properties

Contains no endocrine disruptor (ED) at a concentration of $\geq 0.1\%$.

12.7 Other adverse effects

No data are available.

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SECTION 13: Disposal instructions

13.1 Waste treatment methods:

Information regarding wastewater discharge

Do not throw waste in the sink.

Avoid discharge into the environment.

Waste treatment of containers/packaging

Fully emptied containers can be recycled.

Contaminated packaging can be treated like the substance itself.

Comments

Please note the relevant national or regional provisions.

Waste is separated into the categories that can be treated separately by local or national waste management services.

SECTION 14: Information relating to transport

14.1 UN number

Not subject to transport regulations.

14.2 Proper cargo name according to UN model regulations

Not relevant.

14.3 Transport hazard class(es)

None.

14.4 Packing group

Not granted.

14.5 Environmental hazards

Not hazardous to the environment, according to regulations for the transport of dangerous goods.

14.6 Special precautions for the user

There is no further information.

14.7 Transport in bulk in accordance with Annex II to MARPOL 73/78 and the IBC Code

No data available.

Further information for UN regulations

Transport of dangerous goods by road, rail or inland waterway (ADR/RID/ADN) - additional information

Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG) - supplementary information

Not subject to the IMDG.

International Civil Aviation Organisation (ICAO-IATA/DGR) - supplementary information

Not subject to ICAO-IATA.

SECTION 15: Statutory information

15.1 Safety, health and environmental regulations and legislation specific to the substance or mixture:

Relevant European Union (EU) provisions

Restrictions in accordance with REACH, Annex XVII

1,2-benzisothiazole-3(2H)-one. Substances in ink for tattooing or permanent make-up. 75.

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

None of the ingredients are listed.

Seveso Directive 2012/18/EU (Seveso III)

Not granted.

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

None of the ingredients are listed.

Water framework directive (WFD)

None of the ingredients are listed.

Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/2006 and repealing Regulation (EU) No 98/2013

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None of the ingredients are listed.

Regulation on persistent organic pollutants (POPs)

None of the ingredients are listed.

National regulations (Netherlands)

SZW list CMR effects

None of the ingredients are listed.

15.2 Chemical safety assessment:

No chemical safety assessment has been carried out by the supplier for this mixture.

SECTION 16: Other information

Abbreviations and acronyms

Acute Tox. Acute toxicity. ADN. Accord européen relatif au transport internationale des marchandises Dangereuses par voies de navigation Intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways). ADR. Accord relatif au transport internationale des marchandises Dangereuses par route (Agreement concerning the international carriage of dangerous goods by road). Aquatic Acute. Acute hazard to the aquatic environment. Aquatic Chronic. Chronic hazard to the aquatic environment. ATE. Acute toxicity estimate. CAS. Chemical Abstracts Service (database for chemicals and their unique number, the CAS registration number). Catalogue No. The catalogue number is the identifier used in Part 3 of Annex VI to Regulation (EC) No 1272/2008. CLP. Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging (CLP) of substances and mixtures. CMR. Carcinogenic, Mutagenic or Reproductive toxicity. DGR. Dangerous Goods Regulations, regulations for the carriage of dangerous goods, see IATA/DGR. DMEL. Derived Minimal Effect Level. DNEL. Derived No-Effect Level. EC50. Effective concentration 50%. The EC50 corresponds to the concentration of a tested substance that causes 50 % change in response (e.g. on growth) during a specified time interval. EC No. The EC Registry (EINECS, ELINCS and the NLP Registry) is the source for the seven-digit EC number as a reference number for substances (European Union). ED. Endocrine disruptor. EINECS. European Inventory of Existing Commercial Chemical Substances. ELINCS. European List of Notified Chemical Substances. ErC50. \equiv EC50: in this method, the concentration of a test substance at which a 50 % reduction in growth (EbC50) or growth rate (ErC50) occurs relative to the control. Eye Dam. Causes serious eye damage. Eye Irrit. Irritating to eyes. GHS. "Globally Harmonised System of Classification and Labelling of Chemicals" developed by the United Nations. IATA. International Air Transport Association. IATA/DGR. Dangerous Goods Regulations (DGR) for aviation (IATA). ICAO. International Civil Aviation Organisation. IMDG. International Maritime Dangerous Goods Code (IMDG Code). LC50. Lethal concentration 50 %: is the concentration value in air of the material at which 50 % of the test objects die during a specified time interval. LD50. Lethal dose 50 %: the LD50 corresponds to the dose of a tested substance at which 50 % of the test objects die during a specified time interval. LEL. Lower explosion limit (LEL). LOEC. Lowest concentration at which an effect was observed. M-Factor. A multiplication factor. It applies to the concentration of a substance classified as hazardous to the aquatic environment, acute category 1 or chronic category 1, which is used to determine, by the summation method, the classification of a mixture in which the substance is present. NLP. No-Longer Polymer. NOEC. Concentration with no observed effects. PBT. Persistent, Bioaccumulative and Toxic. PNEC. Predicted no-effect concentration. REACH. Registration, Evaluation, Authorisation and Restriction of Chemicals. RID. Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations on the International Carriage of Dangerous Goods by Rail). Skin Corr. Skin corrosive. Skin Irrit. Skin irritant. Skin Sens. Skin sensitisation. SVHC. Substance of very high concern. UEL. Upper explosion limit (UEL). ZPzB. Very persistent and very bioaccumulative.

Key literature references and data sources

Regulation (EC) No 1272/2008 on classification, labelling and packaging (CLP) of substances and mixtures.
Regulation (EC) No 1907/2006 (REACH), amended by 2020/878/EU.
Transport of dangerous goods by road, rail or inland waterways (ADR/RID/ADN).
International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for aviation (IATA).

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Classification procedure

Physical and chemical properties: Classification is based on the results of the tested mixtures.

Health hazards, Environmental hazards: The method of classification of mixtures based on the components of the mixture (sum formula).

List of relevant sentences (code and full text as mentioned in sections 2 and 3)

H302. Harmful if swallowed.

H315. Causes skin irritation.

H317. May cause an allergic skin reaction.

H318. Causes serious eye damage.

H330. Fatal by inhalation.

H400. Very toxic to aquatic organisms.

H410. Highly toxic to aquatic organisms, with long-lasting effects.

Disclaimer

This information is based on the current state of our knowledge.

This safety data sheet is compiled and intended exclusively for this product.