

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Trade name AUGEO CRYSTAL (Reed Diffuser Base)

1.2 Relevant identified uses of the substance or mixture and uses advised against**Uses of the Substance/Mixture**

- Uses in Coatings
- Clear coating
- Paint
- Use as solvent for electronics

1.3 Details of the supplier of the safety data sheet**Company**

Supplies For Candles
Unit E, Swinton Bridge Industrial Estate,
Whitelee Road
Swinton
S64 8BH

E-mail address

customerservice@suppliesforcandles.co.uk

1.4 Emergency telephone number

Contact: Nicky Story .

Telephone 01709 257151

Office Hours: 9:00 - 17:00 Monday to Friday

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****GHS Classification (UN)**

Flammable liquids, Category 4
Eye irritation, Category 2A

H227: Combustible liquid.
H319: Causes serious eye irritation.

2.2 Label elements**GHS label elements (UN)****Hazardous products which must be listed on the label**

- CAS-No. 100-79-8 2,2-dimethyl-1,3-dioxolan-4-ylmethanol

Pictogram**Signal word**

- Warning

Hazard statements

- H227 Combustible liquid.
- H319 Causes serious eye irritation.

Precautionary statements

General

- None

Prevention

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P264 Wash skin thoroughly after handling.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical advice/ attention.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage

- P403 Store in a well-ventilated place.

Disposal

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

2.3 Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients**3.1 Substance****Information on Components and Impurities**

Chemical name	CAS-No.	GHS Classification	Concentration [%]
2,2-dimethyl-1,3-dioxolan-4-ylmethanol	100-79-8	Flammable liquids, Category 4 ; H227 Eye irritation, Category 2 ; H319	>= 75- <= 85

For the full text of the H-Statements mentioned in this Section, see Section 16.

3.2 Mixture

- Not applicable, this product is a substance.

SECTION 4: First aid measures**4.1 Description of first aid measures****General advice**

- Show this safety data sheet to the doctor in attendance.
- First aider needs to protect himself.
- Place affected clothing in a sealed bag for subsequent decontamination.

In case of inhalation

- Move to fresh air.
- Keep at rest.
- Consult a physician if necessary.

In case of skin contact

- Take off contaminated clothing and shoes immediately.
- Wash off with soap and plenty of water.
- If skin irritation occurs, seek medical advice/attention.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- If eye irritation persists, consult a physician

In case of ingestion

- Do NOT induce vomiting.
- Rinse mouth with water.
- Do not give anything to drink.
- Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- no data available

4.3 Indication of any immediate medical attention and special treatment needed**Notes to physician**

- Treat symptomatically.
- There is no specific antidote available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

- Foam
- Dry powder
- Water mist
- Carbon dioxide (CO₂)
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

- High volume water jet

5.2 Special hazards arising from the substance or mixture

- Combustible liquid.
- Heating increases the inner pressure of the bottle, risk of explosion.

5.3 Advice for firefighters**Further information**

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Cool containers/tanks with water spray.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Mark the contaminated area with signs and prevent access to unauthorized personnel.
- Evacuate personnel to safe areas.
- Avoid contact with the skin and the eyes.
- Use personal protective equipment.
- Keep away from flames and sparks.
- Store away from heat.
- Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid.
- Remove all incompatible materials as quickly as possible

6.2 Environmental precautions

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- Dam up.
- Prevent product from entering sewage system.
- Try to prevent the material from entering drains or water courses.
- Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Recovery

- Collect spillage.
- Pick up and transfer to properly labelled containers.
- Keep in suitable, closed containers for disposal.

Neutralization

- Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Decontamination/cleaning

- Pick up contaminated soil.
- Clean contaminated floors and objects thoroughly while observing environmental regulations.
- Pick up and transfer to properly labelled containers.
- Keep in suitable, closed containers for disposal.
- Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Disposal

- Dispose of contents/ container to an approved waste disposal plant.
- The product should not be allowed to enter drains, water courses or the soil.
- Dispose of in accordance with local regulations.

Additional advice

- Remove all incompatible materials as quickly as possible

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Provide adequate ventilation.
- Provide sufficient air exchange and/or exhaust in work rooms.
- Handle in accordance with good industrial hygiene and safety practice.
- Wear personal protective equipment.
- Avoid inhalation, ingestion and contact with skin and eyes.
- For personal protection see section 8.

Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- Use clean, well-maintained personal protection equipment.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- The floor of the depot should be impermeable and designed to form a water-tight basin.
- Keep only in the original container.
- Keep in a dry, cool and well-ventilated place.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from incompatible materials to be indicated by the manufacturer

Packaging material**Suitable material**

- Unlined steel
- Plastic container of HDPE

Requirements for storage rooms and vessels

- Protect from frost, heat and sunlight.

7.3 Specific end use(s)

- no data available

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

- Contains no substances with occupational exposure limit values above their regulatory reporting threshold.

8.2 Exposure controls**Control measures****Engineering measures**

- Provide adequate ventilation.

Individual protection measures**Respiratory protection**

- Use a respirator with an approved filter if a risk assessment indicates this is necessary.

Eye protection

- Safety glasses with side-shields

Skin and body protection

- Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Remove and wash contaminated clothing.

Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- Use clean, well-maintained personal protection equipment.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.

Protective measures

- The protective equipment must be selected in accordance with current CEN standards and in cooperation with the supplier of the protective equipment.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards and/or risks that may occur during use.

Environmental exposure controls

- Dam up.
- Prevent product from entering sewage system.
- Try to prevent the material from entering drains or water courses.
- Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

<u>Appearance</u>	<u>Physical state:</u> liquid <u>Colour:</u> colourless
<u>Odour</u>	slight
<u>Odour Threshold</u>	No data available
<u>Molecular weight</u>	132.16 g/mol
<u>pH</u>	Not applicable
<u>Melting point/freezing point</u>	<u>Freezing point:</u> -99 °C
<u>Initial boiling point and boiling range</u>	<u>Boiling point/boiling range:</u> 191 °C (1,013.25 hPa)
<u>Flash point</u>	91 °C closed cup 100 °C open cup
<u>Evaporation rate (Butylacetate = 1)</u>	0.03
<u>Flammability (solid, gas)</u>	No data available
<u>Flammability (liquids)</u>	No data available
<u>Flammability/Explosive limit</u>	No data available
<u>Auto-ignition temperature</u>	390 °C (1,013 hPa) Method: EU Test Guideline A15
<u>Vapour pressure</u>	0.05 hPa (20 °C)
<u>Vapour density</u>	2.6
<u>Density</u>	
<u>Relative density</u>	1.069 (20 °C)

<u>Solubility</u>	<u>Water solubility:</u> (20 °C)completely soluble
	<u>Solubility in other solvents:</u> Alcohol : miscible
	Esters : miscible
	Ether : miscible
	Aromatic hydrocarbons : miscible
	petroleum ether. : miscible
	petrol : miscible
<u>Partition coefficient: n-octanol/water</u>	No data available
<u>Decomposition temperature</u>	No data available
<u>Viscosity</u>	<u>Viscosity, dynamic :</u> 11 mPa.s (20 °C)
<u>Explosive properties</u>	No data available
<u>Oxidizing properties</u>	No data available

9.2 Other information

<u>Surface tension</u>	33.5 mN/m (20 °C)
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SECTION 10: Stability and reactivity

10.1 Reactivity

- no data available

10.2 Chemical stability

- Stable at room temperature.
- Stable under normal conditions.

10.3 Possibility of hazardous reactions

- Vapours may form explosive mixture with air.

10.4 Conditions to avoid

- Heat, flames and sparks.

10.5 Incompatible materials

- Strong oxidizing agents
- Strong acids
- Strong reducing agents
- Strong bases

10.6 Hazardous decomposition products

Hazardous decomposition products

- On combustion or on thermal decomposition (pyrolysis) releases:
- (Carbon oxides (CO + CO₂)).
- Acetic acid
- Ethanol

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Acute oral toxicity**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol LD50 : 7,000 mg/kg - Rat
Not classified as hazardous for acute oral toxicity according to GHS.
Published data

Acute inhalation toxicity

2,2-dimethyl-1,3-dioxolan-4-ylmethanol LC50 (dust/mist) : > 5.11 mg/l - Rat , male and female
Method: OECD Test Guideline 403
Not classified as hazardous for acute inhalation toxicity according to GHS.
Aerosol
No mortality observed at this concentration.
Unpublished internal reports

Acute dermal toxicity

2,2-dimethyl-1,3-dioxolan-4-ylmethanol LD50 : 2,000 mg/kg - Rat , male and female
Method: OECD Test Guideline 402
Not classified as hazardous for acute dermal toxicity according to GHS.
Unpublished internal reports

Acute toxicity (other routes of administration)

No data available

Skin corrosion/irritation

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Rabbit
No skin irritation
Method: OECD Test Guideline 404
Unpublished internal reports

Serious eye damage/eye irritation

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Rabbit
irritating
Method: OECD Test Guideline 405
Unpublished internal reports

Respiratory or skin sensitisation

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Maximisation Test - Guinea pig
Does not cause skin sensitisation.
Method: OECD Test Guideline 406
Unpublished internal reports

Mutagenicity**Genotoxicity in vitro**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Ames test
with and without metabolic activation

negative
Method: OECD Test Guideline 471
Unpublished internal reports

Genotoxicity in vivo

2,2-dimethyl-1,3-dioxolan-4-ylmethanol In vivo micronucleus test - Mouse
male
Intraperitoneal route
Method: OECD Test Guideline 474

negative
Unpublished internal reports

Carcinogenicity

No data available

Toxicity for reproduction and development**Toxicity to reproduction/Fertility**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Reproduction/developmental toxicity screening test - Rat, male and female, Oral
Fertility NOAEL Parent: 1,000 mg/kg bw/day
Method: OECD Test Guideline 422
Highest dose tested, no impairment of fertility has been observed, Unpublished
internal reports

Developmental Toxicity/Teratogenicity

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Rat, male and female, Oral
General Toxicity Maternal NOAEL: 1,000 mg/kg bw/day

Teratogenicity NOAEL F1:1,000mg/kg bw/day
Embryo-foetal toxicity NOAEL F1: 1,000 mg/kg bw/day

Method: OECD Test Guideline 414
Highest dose tested, no embryotoxic or teratogenic effects have been observed,
Unpublished internal reports

STOT**STOT - single exposure**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Exposure routes: Ingestion, Skin contact, Inhalation
The substance or mixture is not classified as specific target organ toxicant, single
exposure according to GHS criteria.
internal evaluation

STOT - repeated exposure

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Exposure routes: Ingestion, Inhalation
The substance or mixture is not classified as specific target organ toxicant,
repeated exposure according to GHS criteria.
internal evaluation

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Oral - Rat , male and female
NOAEL: 1000 mg/kg
Method: OECD Test Guideline 422

Highest dose tested
 No significant adverse effects were reported
 A testing proposal has been submitted to ECHA.
 Unpublished internal reports

Inhalation (aerosol) 90-day - Rat , male and female
 NOAEC: > 5 mg/l
 Method: OECD Test Guideline 413
 Highest dose tested
 No significant adverse effects were reported
 Unpublished internal reports

Experience with human exposure

No data available

Aspiration toxicity

No data available

SECTION 12: Ecological information**12.1 Toxicity****Aquatic Compartment****Acute toxicity to fish**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol LC50 - 96 h : 16.7 mg/l - Pimephales promelas (fathead minnow)
 flow-through test
 Analytical monitoring: yes

 Method: according to a standardised method
 Harmful to fish.
 Published data

Acute toxicity to daphnia and other aquatic invertebrates

2,2-dimethyl-1,3-dioxolan-4-ylmethanol EC50 - 48 h : > 96 mg/l - Daphnia similis (water flea)
 static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 202
 Not harmful to aquatic invertebrates. (EC/EL50 > 100 mg/L)
 Unpublished internal reports

Toxicity to aquatic plants

2,2-dimethyl-1,3-dioxolan-4-ylmethanol ErC50 - 72 h : > 92 mg/l - Pseudokirchneriella subcapitata (green algae)
 static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 201
 Not harmful to algae (EC/EL50 > 100 mg/L)
 Unpublished internal reports

 NOEC - 72 h : 92 mg/l - Pseudokirchneriella subcapitata (green algae)
 static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 201
 No adverse chronic effect observed up to and including the threshold of 1 mg/L.
 Unpublished internal reports

Toxicity to microorganisms

2,2-dimethyl-1,3-dioxolan-4-ylmethanol EC50 - 3 h : > 1,000 mg/l - activated sludge static test
 Analytical monitoring: no
 Method: OECD Test Guideline 209
 Unpublished internal reports

Chronic toxicity to fish

No data available

Chronic toxicity to daphnia and other aquatic invertebrates

2,2-dimethyl-1,3-dioxolan-4-ylmethanol semi-static test

NOEC: 10 mg/l - 21 Days - Daphnia magna (Water flea)
 flow-through test
 Analytical monitoring: yes
 End point: Reproduction
 Method: OECD Test Guideline 211
 No adverse chronic effect observed up to and including the threshold of 1 mg/L.

Terrestrial Compartment**Toxicity to soil dwelling organisms**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol NOEC: 250 mg/kg - 56 Days - Eisenia fetida (earthworms)
 End point: Reproduction
 Method: OECD Test Guideline 222
 Unpublished internal reports

NOEC: 12.5 mg/kg - 28 Days - soil micro-organisms
 End point: Nitrogen transformation
 Method: OECD Test Guideline 216
 Unpublished internal reports

12.2 Persistence and degradability**Abiotic degradation****Stability in water**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol pH: 4.0
 Temperature of hydrolysis: 25 °C
 Degree of hydrolysis: 50 %
 Hydrolysis time: 0.959 Days
 Method: OECD Test Guideline 111
 Unpublished internal reports,

Physical- and photo-chemical elimination

No data available

Biodegradation**Biodegradability**

Zahn-Wellens Test
 Inherently biodegradable.

Degradability assessment

2,2-dimethyl-1,3-dioxolan-4-ylmethanol The product is not considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water Not potentially bioaccumulable

Bioconcentration factor (BCF) Bioconcentration factor (BCF): 1.3

12.4 Mobility in soil

Adsorption potential (Koc)
2,2-dimethyl-1,3-dioxolan-4-ylmethanol Adsorption/Soil
Log Koc: < 1.25
Method: OECD Test Guideline 121
Unpublished internal reports

Known distribution to environmental compartments No data available

12.5 Results of PBT and vPvB assessment This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Ecotoxicity assessment

Short-term (acute) aquatic hazard
2,2-dimethyl-1,3-dioxolan-4-ylmethanol The product does not have any known adverse effects on the aquatic organisms tested

Long-term (chronic) aquatic hazard
2,2-dimethyl-1,3-dioxolan-4-ylmethanol No adverse chronic effect observed up to and including the threshold of 1 mg/L.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- Do not dispose of with domestic refuse.
- Dispose of in accordance with local regulations.
- The product should not be allowed to enter drains, water courses or the soil.
- Dispose of contents/ container to an approved waste disposal plant.
- Send to a licensed waste management company.

Advice on cleaning and disposal of packaging

- Do not re-use empty containers.
- Clean container with water.
- Dispose of contents/ container to an approved incineration plant.
- Dispose of in accordance with local regulations.

SECTION 14: Transport information**IMDG**

not regulated

IATA

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Local regulations**

No data available

Notification status

Inventory Information	Status
United States TSCA Inventory	- On TSCA Inventory
Canadian Domestic Substances List (DSL)	- All components of this product are on the Canadian DSL
Australia Inventory of Chemical Substances (AICS)	- On the inventory, or in compliance with the inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- On the inventory, or in compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- On the inventory, or in compliance with the inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory
EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)	- If product is purchased from Solvay in Europe it is in compliance with REACH, if not please contact the supplier.
New Zealand. Inventory of Chemical Substances	- On the inventory, or in compliance with the inventory

SECTION 16: Other information**Full text of H-Statements**

- H227 Combustible liquid.
- H319 Causes serious eye irritation.

Further information

- Distribute new edition to clients

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. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.