

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

- Trade name AUGEO CLEAN MULTI
- CAS-No. 100-79-8

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

- Cleaning agent
- Waxes
- Stain removers and waxes removers
- Glass cleaner
- diluent and vehicle for fragrances

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

Rhodia Poliamida e Especialidades Ltda  
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Tel: (+55 11) 3741 - 7505

**E-mail address**

manager.sds@solvay.com

**1.4 Emergency telephone number**

Mercosul : (+55 19) 3874 9333, . (+55 19) 3874 7733  
+44(0)1235 239 670 [CareChem 24]

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification (Regulation (EC) No 1272/2008 )**

Eye irritation, Category 2

H319: Causes serious eye irritation.

**2.2 Label elements****Regulation (EC) No 1272/2008****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**

- H319 Causes serious eye irritation.

**Precautionary statements****Prevention**

- P264 Wash skin thoroughly after handling.
- P280 Wear protective gloves/ 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.

**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	Identification number	Classification Regulation (EC) No 1272/2008	Concentration [%]
2,2-dimethyl-1,3-dioxolan-4-ylmethanol	CAS-No. : 100-79-8  EINECS-No. : 202-888-7  Registration number: 01-2120066005-66-0000	Eye irritation, Category 2 ; H319	>= 99 - <= 100
	self classification		

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.

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- Rinse mouth with water.
- Do not give anything to drink.
- Consult a physician if necessary.

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

##### Effects

- Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis

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

##### Notes to physician

- Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

- Foam
- Dry powder
- Water mist
- Carbon dioxide (CO<sub>2</sub>)
- 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

##### Special protective equipment for firefighters

- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Wear self-contained breathing apparatus for firefighting if necessary.

##### 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

- Keep away from flames and sparks.
- Store away from heat.
- Evacuate personnel to safe areas.
- Avoid contact with the skin and the eyes.
- Use personal protective equipment.
- For personal protection see section 8.
- Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid.
- Remove all incompatible materials as quickly as possible
- Mark the contaminated area with signs and prevent access to unauthorized personnel.

#### 6.2 Environmental precautions

- 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

- no data available

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Provide adequate ventilation.
- Handle in accordance with good industrial hygiene and safety practice.
- Wear personal protective equipment.
- Avoid inhalation, ingestion and contact with skin and eyes.

#### **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 away from heat and sources of ignition.
- Keep in a dry, cool and well-ventilated place.

#### **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.

**8.2 Exposure controls****Individual protection measures****Respiratory protection**

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

**Hand protection**

- Where there is a risk of contact with hands, use appropriate gloves
- Gloves must be inspected prior to use.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

**Eye protection**

- Tightly fitting safety goggles

**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**

- 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.
- 
- The protective equipment must be selected in accordance with current local standards and in cooperation with the supplier of the protective equipment.

**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**

<b><u>Appearance</u></b>	<b>Form:</b> liquid <b><u>Physical state:</u></b> liquid <b>Colour:</b> colourless
<b><u>Odour</u></b>	slight
<b><u>Odour Threshold</u></b>	no data available
<b><u>pH</u></b>	Not applicable
<b><u>Freezing point</u></b>	-70 °C
<b><u>Boiling point/boiling range</u></b>	191 °C ( 1,013.25 hPa)
<b><u>Flash point</u></b>	91 °C closed cup 100 °C open cup
<b><u>Evaporation rate (Butylacetate = 1)</u></b>	0.03
<b><u>Flammability (solid, gas)</u></b>	no data available
<b><u>Flammability (liquids)</u></b>	no data available
<b><u>Flammability/Explosive limit</u></b>	no data available
<b><u>Auto-ignition temperature</u></b>	no data available
<b><u>Vapour pressure</u></b>	0.05 hPa ( 20 °C)
<b><u>Vapour density</u></b>	2.6
<b><u>Density</u></b>	<b><u>Relative density:</u></b> 1.069 ( 20 °C)
<b><u>Solubility</u></b>	<b><u>Water solubility :</u></b> ( 20 °C) completely soluble  <b><u>Solubility in other solvents:</u></b> Alcohol : miscible  Esters : miscible  Ether : miscible  Aromatic hydrocarbons : miscible  petroleum ether. : miscible  petrol : miscible
<b><u>Partition coefficient: n-octanol/water</u></b>	no data available
<b><u>Thermal decomposition</u></b>	no data available

**Viscosity** Viscosity, dynamic : 11 mPa.s ( 20 °C)

**Explosive properties** no data available

**Oxidizing properties** no data available

## 9.2 Other information

**Surface tension** 33.5 mN/m ( 20 °C)

**Molecular weight** 132.16 g/mol

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

- Not classified as a reactivity hazard.

### 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

### 10.6 Hazardous decomposition products

- On combustion or on thermal decomposition (pyrolysis) releases:
  - (Carbon oxides (CO + CO<sub>2</sub>)).
  - Acetic acid
  - Ethanol

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

**Acute oral toxicity** LD50 : 7,000 mg/kg - Rat

**Acute inhalation toxicity** no data available

#### 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)**

LD50 : 3,000 mg/kg - Rat  
Intraperitoneal route

<b><u>Skin corrosion/irritation</u></b>	No skin irritation Method: OECD Test Guideline 404 Unpublished internal reports
<b><u>Serious eye damage/eye irritation</u></b>	Irritating to eyes. Method: OECD Test Guideline 405 Unpublished internal reports
<b><u>Respiratory or skin sensitisation</u></b>	Did not cause sensitization on laboratory animals. Method: OECD Test Guideline 406 Unpublished internal reports
<b><u>Mutagenicity</u></b>	
<b>Genotoxicity in vitro</b>	Mutagenicity (Salmonella typhimurium - reverse mutation assay) negative Unpublished internal reports
<b>Genotoxicity in vivo</b>	Mutagenicity (micronucleus test)negative Unpublished internal reports
<b><u>Carcinogenicity</u></b>	no data available
<b><u>Toxicity for reproduction and development</u></b>	
<b>Toxicity to reproduction/Fertility</b>	
2,2-dimethyl-1,3-dioxolan-4-ylmethanol	Reproduction/developmental toxicity screening test - Rat , male and female Oral NOAEL parent: 1,000 mg/kg Method: OECD Test Guideline 422 The product is not considered to affect fertility. Unpublished internal reports
<b>Developmental Toxicity/Teratogenicity</b>	no data available
<b><u>STOT</u></b>	
<b>STOT - single exposure</b>	
2,2-dimethyl-1,3-dioxolan-4-ylmethanol	Exposure routes: Ingestion, Skin contact The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria. internal evaluation
<b>STOT - repeated exposure</b>	
2,2-dimethyl-1,3-dioxolan-4-ylmethanol	Exposure routes: Ingestion 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 Not considered to cause serious damage to health on repeated exposure Gavage Unpublished internal reports



**Aspiration toxicity** no data available

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic Compartment

**Acute toxicity to fish** LC50 - 96 h : 16,700 mg/l - Pimephales promelas (fathead minnow)

**Acute toxicity to daphnia and other aquatic invertebrates.** LC50 - 24 h : > 1,000 mg/l - Daphnia similis (water flea)

LC50 - 48 h : > 1,000 mg/l - Daphnia similis (water flea)

#### 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 (EC50 > 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

### 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,

#### 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

**12.5 Results of PBT and vPvB assessment**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol 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**

no data available

**Ecotoxicity assessment****Acute aquatic toxicity**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Not harmful to aquatic life (LC/EC50 > 100 mg/L)

**Chronic aquatic toxicity**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Does not have any known long-term adverse effects on the aquatic organisms tested

**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****ADR**

not regulated

**RID**

no data available

**IMDG**

not regulated

**IATA**

not regulated

**ADN/NADNR**

no data available

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****Notification status**

<b>Inventory Information</b>	<b>Status</b>
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

**15.2 Chemical Safety Assessment**

- no data available

**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

- H319 Causes serious eye irritation.

**Further information**

- This sheet was updated (refer to the date at the top of this page). Subheadings and text which have been modified since the previous version are indicated with two vertical bars.

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.