



## SAFETY DATA SHEET (SDS)

Prepared in accordance with the Globally Harmonized System (GHS) and Regulation (EC) No. 1907/2006 (REACH, as amended)

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### SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

#### 1.1 Product Identifier

| Parameter               | Details                                                                 |
|-------------------------|-------------------------------------------------------------------------|
| Product Name            | Pyranol                                                                 |
| Manufacturer            | BASF                                                                    |
| Chemical Name           | Tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans) |
| Alternative Description | 2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol                             |
| CAS Number              | 63500-71-0                                                              |
| EC Number               | 405-040-6                                                               |
| Index Number            | 603-101-00-3                                                            |
| Molecular Formula       | C <sub>10</sub> H <sub>20</sub> O <sub>2</sub>                          |
| Molecular Weight        | 172.27 g/mol                                                            |
| Product Type            | Synthetic Aroma Chemical                                                |
| Physical Form           | Liquid                                                                  |
| Olfactive Family        | Floral / Muguet                                                         |
| Odour Description       | Fresh, soft, natural floral and lily-of-the-valley character            |

BASF identifies Pyranol as tetrahydro-2-isobutyl-4-methylpyran-4-ol, supplied as a mixture of cis and trans isomers under CAS 63500-71-0 and EC 405-040-6.

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#### 1.2 Relevant Identified Uses

- Professional perfumery
- Fine-fragrance compounding
- Muguet and floral accords
- Soap and detergent fragrances
- Cosmetic fragrance formulations
- Home-care fragrance compositions
- Air-care products
- Laboratory fragrance evaluation

BASF lists Pyranol for chemical, detergent, soap and cosmetic applications.

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#### 1.3 Uses Advised Against



- Internal consumption
- Direct undiluted skin application
- Use by children
- Pharmaceutical or therapeutic use
- Any application inconsistent with the BASF product specification or applicable legislation

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## 1.4 Supplier Details

**Aromology Trading LLC**  
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Nadd Al Hamar  
Dubai, United Arab Emirates

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**Email:** [info@aromology.com](mailto:info@aromology.com)

**Telephone:** +971 505197601

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## 1.5 Emergency Telephone Number

Contact the nearest poison-control centre, emergency medical service or qualified physician.

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## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification Under GHS / CLP Principles

| Hazard Class                        | Category        | Hazard Statement                   |
|-------------------------------------|-----------------|------------------------------------|
| Serious Eye Damage / Eye Irritation | Category 2 / 2A | H319 Causes serious eye irritation |

The current BASF Safety Data Sheet classifies Pyranol as an eye irritant, Category 2A.

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### 2.2 Label Elements

**Signal Word**

**Warning**

**Hazard Statement**

- H319: Causes serious eye irritation.

**Precautionary Statements**



- P264: Wash hands and exposed skin thoroughly after handling.
- P280: Wear protective gloves and eye or face protection.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P337+P313: If eye irritation persists: Get medical advice or attention.

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### 2.3 Other Hazards

- Avoid breathing concentrated vapour or spray.
- Spilled product may create slippery surfaces.
- Combustible under fire conditions, although it is not classified as a flammable liquid.
- The substance is not expected to be self-igniting or explosive.
- No aspiration hazard is expected.
- No PBT or vPvB classification has been established for the substance.

BASF states that Pyranol is not expected to present an aspiration hazard and is not classified as self-igniting or explosive.

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## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1 Substance

| Component                                                    | CAS Number | EC Number      | Concentration |
|--------------------------------------------------------------|------------|----------------|---------------|
| Tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixture of isomers | 63500-71-0 | 405-040-6      | ≥75–100%      |
| D,L-α-Tocopherol                                             | 10191-41-0 | Batch specific | <0.1%         |

BASF identifies the principal material at 75–100% and reports less than 0.1% D,L-α-tocopherol as a stabilising minor component.

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### 3.2 Isomeric Composition

Pyranol is supplied as a mixture of cis and trans isomers.

Representative commercial specifications indicate:

| Parameter          | Representative Specification |
|--------------------|------------------------------|
| Total Purity by GC | Minimum 98.0%                |
| Cis Isomer         | Approximately 75–85%         |
| Trans Isomer       | Balance                      |



BASF's technical information specifies a minimum purity of 98%, while commercial specifications commonly report the cis isomer at approximately 75–85%.

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## **SECTION 4: FIRST-AID MEASURES**

### **4.1 Description of First-Aid Measures**

#### **Inhalation**

Move the affected person to fresh air.

Keep the person calm and at rest.

Seek medical attention if respiratory discomfort, dizziness or nausea persists.

#### **Skin Contact**

Remove contaminated clothing.

Wash affected skin thoroughly with soap and water.

Obtain medical advice if irritation develops.

#### **Eye Contact**

Immediately rinse cautiously with clean water for at least 15 minutes.

Hold the eyelids open and remove contact lenses where easy to do.

Continue rinsing.

Seek medical attention if irritation persists.

#### **Ingestion**

Rinse the mouth.

Do not induce vomiting unless instructed by medical personnel.

Obtain medical advice if discomfort occurs.

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### **4.2 Most Important Symptoms and Effects**

Possible symptoms include:



- Eye redness
- Burning sensation
- Excessive tearing
- Temporary eye discomfort
- Respiratory discomfort following excessive vapour exposure
- Gastrointestinal discomfort after accidental ingestion

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### **4.3 Immediate Medical Attention**

Treat symptomatically.

Persistent eye irritation should be assessed by a medical professional.

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## **SECTION 5: FIRE-FIGHTING MEASURES**

### **5.1 Suitable Extinguishing Media**

- Carbon dioxide
- Dry chemical powder
- Alcohol-resistant foam
- Water spray

BASF recommends carbon dioxide, dry powder, foam and water spray as suitable extinguishing media.

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### **5.2 Unsuitable Extinguishing Media**

Do not use a direct high-pressure water jet.

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### **5.3 Special Hazards Arising From the Product**

Combustion or thermal decomposition may produce:

- Carbon monoxide
- Carbon dioxide
- Harmful or irritating vapours
- Smoke

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### **5.4 Advice for Firefighters**



Wear:

- Self-contained breathing apparatus
- Full protective clothing
- Chemical-resistant gloves
- Eye and face protection

Cool fire-exposed containers with water spray.

Prevent contaminated fire-fighting water from entering drains or waterways.

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## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal Precautions**

- Ensure adequate ventilation.
- Avoid breathing vapour or spray.
- Avoid contact with eyes, skin and clothing.
- Wear suitable protective equipment.
- Keep unnecessary personnel away.
- Eliminate ignition sources where practicable.
- Take precautions against static discharge.

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### **6.2 Environmental Precautions**

- Do not discharge into drains.
- Prevent entry into surface water or groundwater.
- Contain larger spills using suitable barriers.

BASF instructs users not to discharge Pyranol into drains, surface waters or groundwater.

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### **6.3 Methods for Containment and Cleaning**

#### **Small Spills**

Absorb using:

- Sand
- Silica gel
- General-purpose absorbent
- Acid binder
- Sawdust



- Other inert absorbent material

## **Large Spills**

- Dike the spilled material.
- Pump the product into suitable labelled containers.
- Dispose of absorbed material according to applicable regulations.

These containment methods follow BASF's current spill-response guidance.

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## **SECTION 7: HANDLING AND STORAGE**

### **7.1 Precautions for Safe Handling**

- Ensure thorough ventilation of work and storage areas.
- Avoid contact with eyes, skin and clothing.
- Avoid breathing vapour or spray.
- Wear suitable protective clothing and eye protection.
- Keep the container tightly sealed.
- Do not eat, drink or smoke while handling.
- Wash hands and face after use.
- Take precautions against static discharge.
- Keep away from unnecessary ignition sources.

BASF recommends thorough ventilation, tightly sealed containers and precautions against static discharge and ignition sources.

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### **7.2 Conditions for Safe Storage**

Store:

- In tightly closed original or compatible containers
  - In a cool, dry and well-ventilated area
  - Preferably between 15°C and 25°C
  - Protected from direct sunlight
  - Away from heat and ignition sources
  - Away from strong oxidising agents
  - Away from food and beverages
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### **7.3 Specific End Uses**

Professional fragrance, cosmetic, soap, detergent and home-care formulation use.



BASF's technical information indicates a typical fragrance use level of up to 30%, subject to formulation safety and regulatory assessment.

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## **SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **8.1 Control Parameters**

No specific occupational exposure limit has been established for Pyranol.

Observe applicable occupational exposure limits for any process-generated vapours or aerosols.

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### **8.2 Engineering Controls**

- Provide adequate general ventilation.
  - Use local exhaust ventilation when handling bulk quantities.
  - Provide an accessible eyewash station.
  - Provide hand-washing facilities.
  - Prevent accumulation of vapours or aerosols.
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### **8.3 Personal Protective Equipment**

#### **Eye and Face Protection**

Wear tightly fitting chemical safety goggles.

Use a face shield where splashing is likely.

#### **Hand Protection**

Wear chemically resistant gloves, such as nitrile rubber gloves.

#### **Skin and Body Protection**

Wear closed protective work clothing.

#### **Respiratory Protection**

Normally not required with adequate ventilation.

Use an approved organic-vapour respirator where ventilation is insufficient or aerosols are generated.

#### **Hygiene Measures**



- Avoid contact with eyes.
- Wash hands and face before breaks and after handling.
- Remove contaminated clothing.
- Do not eat, drink or smoke in handling areas.

BASF recommends closed work clothing in addition to the required personal protective equipment.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| Property                  | Representative Information                     |
|---------------------------|------------------------------------------------|
| Physical State            | Liquid                                         |
| Appearance                | Clear viscous liquid                           |
| Colour                    | Colourless to pale yellow                      |
| Odour                     | Fresh, soft, natural floral, muguet            |
| Molecular Formula         | C <sub>10</sub> H <sub>20</sub> O <sub>2</sub> |
| Molecular Weight          | 172.27 g/mol                                   |
| Flash Point               | Approximately 106 °C                           |
| Vapour Pressure at 20 °C  | Approximately 0.01 hPa                         |
| Relative Density at 20 °C | Approximately 0.948–0.955                      |
| Refractive Index at 20 °C | Approximately 1.4550–1.4600                    |
| Water Solubility          | Approximately 23.65 g/L at 20 °C               |
| Log Pow                   | Approximately 1.65                             |
| pH                        | Not applicable                                 |
| Auto-Ignition             | Not classified as self-igniting                |
| Explosive Properties      | Not expected to be explosive                   |
| Oxidising Properties      | Not classified as oxidising                    |
| Particle Characteristics  | Not applicable; product is a liquid            |

BASF reports a flash point of 106 °C, vapour pressure of 0.01 hPa at 20 °C, molecular weight of 172.27 g/mol and log Pow of 1.65. Density, refractive index and water-solubility values are consistent with commercial Pyranol specifications.

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## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

No hazardous reaction is expected when stored and handled as recommended.

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## 10.2 Chemical Stability

Stable under normal recommended storage and handling conditions.

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## 10.3 Possibility of Hazardous Reactions

No hazardous reactions are expected under normal conditions.

Hazardous polymerisation is not expected.

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## 10.4 Conditions to Avoid

Avoid:

- Excessive heat
  - Direct sunlight
  - Open flames
  - Sparks
  - Static discharge
  - Contamination
  - Incompatible materials
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## 10.5 Incompatible Materials

- Strong oxidising agents
  - Strong acids
  - Strong alkalis
- 

## 10.6 Hazardous Decomposition Products

No hazardous decomposition products are expected under recommended storage conditions.

Thermal decomposition or combustion may produce:

- Carbon monoxide
- Carbon dioxide
- Harmful organic vapours

BASF states that no hazardous decomposition products are expected if the product is stored and handled as prescribed.



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## **SECTION 11: TOXICOLOGICAL INFORMATION**

### **11.1 Acute Toxicity**

Based on available BASF data, the product is not classified for acute toxicity.

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### **11.2 Skin Corrosion / Irritation**

Animal testing reported the substance as non-irritant to skin under OECD Guideline 404.

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### **11.3 Serious Eye Damage / Irritation**

Irritating to eyes.

Animal testing under OECD Guideline 405 supports the eye-irritation classification.

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### **11.4 Respiratory or Skin Sensitisation**

Skin-sensitising effects were not observed for Pyranol in animal studies.

The very small D,L- $\alpha$ -tocopherol component is separately classified as a potential skin sensitiser, but its concentration is below 0.1%.

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### **11.5 Germ Cell Mutagenicity**

No classification is indicated based on the available product information.

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### **11.6 Carcinogenicity**

No classification is indicated based on the available product information.

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### **11.7 Reproductive Toxicity**

No classification is indicated based on the available product information.

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### **11.8 STOT – Single Exposure**

No classification established.

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### **11.9 STOT – Repeated Exposure**

Effects on the kidneys of male rats were observed after repeated exposure, but BASF states that these findings are specific to male rats and are not considered relevant to humans. No adverse effects were observed after repeated dermal exposure in animal studies.

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### **11.10 Aspiration Hazard**

No aspiration hazard is expected.

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## **SECTION 12: ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

Avoid uncontrolled environmental release.

No environmental hazard classification is assigned in the current representative BASF SDS.

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### **12.2 Persistence and Degradability**

BASF biodegradation studies report limited degradation in one 28-day test and approximately 64.8% biological oxygen demand relative to theoretical oxygen demand after 60 days in another test.

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### **12.3 Bioaccumulative Potential**

Bioaccumulation in organisms is not expected because of the substance's octanol/water partition coefficient.

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### **12.4 Mobility in Soil**

The product is partly soluble in water.

Mobility will depend on soil composition, water content and local environmental conditions.



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## 12.5 PBT and vPvB Assessment

The substance is not expected to fulfil PBT or vPvB criteria based on available information.

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## 12.6 Endocrine-Disrupting Properties

No endocrine-disrupting properties have been established for the substance.

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## 12.7 Other Adverse Effects

Do not discharge into drains, surface waters or groundwater.

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# SECTION 13: DISPOSAL CONSIDERATIONS

## 13.1 Waste Treatment Methods

- Dispose of according to national and local legal requirements.
- Use an authorised chemical-waste contractor.
- Do not discharge into drains or waterways.
- Recover or recycle uncontaminated material where permitted.
- Treat contaminated absorbents as chemical waste.

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## 13.2 Packaging Disposal

Empty containers may retain product residues.

Dispose of or recycle packaging according to applicable regulations.

Do not reuse uncleaned containers for food, beverages or consumer products.

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# SECTION 14: TRANSPORT INFORMATION

BASF classifies Pyranol as **not dangerous goods** under standard road, sea and air transport regulations.

| Transport Parameter | Classification |
|---------------------|----------------|
|---------------------|----------------|



|                         |                                                           |
|-------------------------|-----------------------------------------------------------|
| UN Number               | Not applicable                                            |
| UN Proper Shipping Name | Not applicable                                            |
| Transport Hazard Class  | Not applicable                                            |
| Packing Group           | Not applicable                                            |
| Environmental Hazard    | Not applicable                                            |
| ADR / RID               | Not regulated                                             |
| IMDG                    | Not regulated                                             |
| IATA / ICAO             | Not regulated                                             |
| Marine Pollutant        | No                                                        |
| Special Precautions     | Protect containers from heat, leakage and physical damage |

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## SECTION 15: REGULATORY INFORMATION

### 15.1 Applicable Regulations

Prepared with reference to:

- Regulation (EC) No. 1907/2006 — REACH
  - Regulation (EU) 2020/878
  - Regulation (EC) No. 1272/2008 — CLP
  - Regulation (EC) No. 1223/2009 — Cosmetics
  - Applicable occupational, environmental and transport regulations
- 

### 15.2 Regulatory Identification

| Identifier   | Number       |
|--------------|--------------|
| CAS Number   | 63500-71-0   |
| EC Number    | 405-040-6    |
| Index Number | 603-101-00-3 |

These identifiers are confirmed in BASF's global Safety Data Sheet.

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### 15.3 Chemical Safety Assessment

A separate chemical safety assessment has not been performed by Aromology Trading LLC.

The original BASF Safety Data Sheet and regulatory documentation shall take precedence.

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## SECTION 16: OTHER INFORMATION



## 16.1 Full Text of Hazard Statements

- **H317:** May cause an allergic skin reaction.  
Applicable to the minor D,L- $\alpha$ -tocopherol component in its individual classification.
- **H319:** Causes serious eye irritation.

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## 16.2 Abbreviations

| Abbreviation | Meaning                                                                             |
|--------------|-------------------------------------------------------------------------------------|
| ADR          | European Agreement Concerning the International Carriage of Dangerous Goods by Road |
| CAS          | Chemical Abstracts Service                                                          |
| CLP          | Classification, Labelling and Packaging                                             |
| EC           | European Community                                                                  |
| GC           | Gas Chromatography                                                                  |
| GHS          | Globally Harmonized System                                                          |
| IATA         | International Air Transport Association                                             |
| IMDG         | International Maritime Dangerous Goods Code                                         |
| OECD         | Organisation for Economic Co-operation and Development                              |
| PBT          | Persistent, Bioaccumulative and Toxic                                               |
| PPE          | Personal Protective Equipment                                                       |
| REACH        | Registration, Evaluation, Authorisation and Restriction of Chemicals                |
| SDS          | Safety Data Sheet                                                                   |
| STOT         | Specific Target Organ Toxicity                                                      |
| vPvB         | Very Persistent and Very Bioaccumulative                                            |

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## 16.3 Document Information

| Parameter      | Details                                                      |
|----------------|--------------------------------------------------------------|
| Product        | Pyranol – BASF                                               |
| Version        | 1.0                                                          |
| Issue Date     | 24 July 2026                                                 |
| Review Date    | 24 July 2029 or earlier if new information becomes available |
| Intended Users | Professional and industrial users                            |

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## 16.4 Disclaimer

This MSDS has been prepared using current representative BASF Safety Data Sheet and technical information for Pyranol, identified as tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed cis and trans isomers.

The original BASF product documentation, batch Certificate of Analysis, Safety Data Sheet and regulatory statements shall always take precedence.



This document does not constitute a finished-product safety assessment and does not relieve the user from determining:

- Suitability for the intended application
- Safe handling procedures
- Correct use concentration
- IFRA conformity
- Cosmetic regulatory compliance
- Workplace exposure controls
- Finished-product labelling obligations

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**AUTHORISED BY**

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