



## SDS Service Summary

No.: RSTSSDS2512300301

Date: 12 Jan 2026

Page 1 of 1

SGS Job No. : CQP25-015742  
Product Name : COLOR SMOKE FLUID  
Applicant : Showven Technologies Co.,Ltd.  
Model No : FX-S/YELLOW  
Composition/Ingredient of product : See section 3 Composition/information on ingredients on the SDS  
(as per applicant submission)  
Job Receiving Date : 30 Dec 2025  
SDS Preparation Period : 30 Dec 2025-12 Jan 2026  
Service Requested : Preparation of Safety Data Sheet (SDS) for the product with submitted information, with calculation of the classification and labeling requirement according to Annex II of REACH (1907/2006) - Regulation (EU) No 2020/878.  
Summary : As per request, the contents and formats of the SDS are prepared in accordance with Annex II of REACH (1907/2006) - Regulation (EU) No 2020/878.

### Disclaimer

This Safety Data Sheet (SDS) is provided to applicant to Annex II of REACH (1907/2006) - Regulation (EU) No 2020/878 and communicate the hazard information of chemicals through the supply chain to ensure safe use. It is not a test report or a certificate ensuring the safety of a product.

SGS has consolidated product information based on documents provided by Applicant (i.e. product name, the supplier details, product composition, available physical data, etc.) without independent verification from SGS. The information is provided without any warranty, express or implied, regarding its correctness.

*Bella yao*

Bella Yao  
Project Engineer



SGS-CSTC Standards Technical Services (Qingdao) Co., Ltd

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN.Doccheck@sgs.com](mailto:CN.Doccheck@sgs.com)

SGS Center, No.143, Zhuzhou Road, Laoshan District, Qingdao, Shandong, China 266101  
中国·山东·青岛市崂山区株洲路143号通标中心 邮编: 266101

t (86-532) 68999888 www.sgsgroup.com.cn  
t (86-532) 68999888 sgs.china@sgs.com

Member of the SGS Group (SGS SA)

# COLOR SMOKE FLUID

## Showven Technologies Co.,Ltd.

Version No:1.0

Safety Data Sheet (Conforms to Annex II of REACH (1907/2006) - Regulation 2020/878)

Initial Date:02/01/2026

Revision Date: 12/01/2026

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

#### 1.1. Product Identifier

|                               |                   |
|-------------------------------|-------------------|
| Product name                  | COLOR SMOKE FLUID |
| Synonyms                      | Not Available     |
| Other means of identification | Not Available     |

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

|                          |                                                  |
|--------------------------|--------------------------------------------------|
| Relevant identified uses | Use according to manufacturer's directions.      |
| Uses advised against     | No specific uses advised against are identified. |

#### 1.3. Details of the manufacturer or importer of the safety data sheet

|                       |                                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------------------------|
| Manufacturer/Supplier | Showven Technologies Co.,Ltd.                                                                       |
| Address               | No.1 Tengda Road, Liuyang Economic & Technical Development Zone, 410300, Changsha, Hunan, P.R.China |
| Telephone             | +86 731 83833068                                                                                    |
| Fax                   | Not Available                                                                                       |
| Website               | Not Available                                                                                       |
| Email                 | info@showven.cn                                                                                     |

#### 1.4. Emergency telephone number

|                                     |                  |
|-------------------------------------|------------------|
| Association / Organisation          | Maping DENG      |
| Emergency telephone number(s)       | +86 731 83833068 |
| Other emergency telephone number(s) | Not Available    |

### SECTION 2 Hazards identification

#### 2.1. Classification of the substance or mixture

|                                                                                              |                                                                      |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Classification according to regulation (EC) No 1272/2008 [CLP] and amendments <sup>[1]</sup> | Non hazardous                                                        |
| Legend:                                                                                      | 1. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |

#### 2.2. Label elements

|                     |                |
|---------------------|----------------|
| Hazard pictogram(s) | Not Applicable |
| Signal word         | Not Applicable |

#### Hazard statement(s)

Not Applicable

#### Precautionary statement(s) Prevention

Not Applicable

#### Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

Material does not contain any CLP Article 18 substances.

2.3. Other hazards

REACH - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

This substance/mixture does not meet the criteria for classification as Persistent, Bioaccumulative, and Toxic (PBT) in accordance with Annex XIII, Commission Delegated Regulation (EU) 2017/2100, and Commission Regulation (EU) 2018/605.

This substance/mixture does not meet the criteria for classification as very Persistent and very Bioaccumulative (vPvB) in accordance with Annex XIII, Commission Delegated Regulation (EU) 2017/2100, and Commission Regulation (EU) 2018/605.

This substance/mixture does not meet the criteria for classification as Persistent, Mobile and Toxic (PMT) in accordance with Commission Delegated Regulation (EU) 2023/707.

This substance/mixture does not meet the criteria for classification as very Persistent and very Mobile (vPvM) in accordance with Commission Delegated Regulation (EU) 2023/707.

The substance/mixture does not contain components considered to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, nor is it included in the list established under REACH Article 59(1), at concentrations equal to or greater than 0.1% (w/w).

No further product hazard information.

SECTION 3 Composition / information on ingredients

3.1. Substances

See 'Composition on ingredients' in Section 3.2

3.2. Mixtures

| 1. CAS No<br>2. EC No<br>3. Index No<br>4. REACH No             | %[weight] | Name                                                                                                                                                                                              | Classification according to regulation (EC) No 1272/2008 [CLP] and amendments | SCL / M-Factor                                                                                   | Nanoform Particle Characteristics |
|-----------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------|
| 1. 57-55-6<br>2.200-338-0<br>3.Not Available<br>4.Not Available | 90        | propylene glycol                                                                                                                                                                                  | Not Classified [2]                                                            | SCL: Not Available<br><br>Acute M factor: Not Applicable<br><br>Chronic M factor: Not Applicable | Not Available                     |
| 1. 1934-21-0<br>2.217-699-5<br>3.Not Available<br>4.None        | 10        | C.I. Acid Yellow 23                                                                                                                                                                               | Not Classified[2]                                                             | SCL: Not Available<br><br>Acute M factor: Not Applicable<br><br>Chronic M factor: Not Applicable | Not Available                     |
| Legend:                                                         |           | 1. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 2. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties |                                                                               |                                                                                                  |                                   |

SECTION 4 First aid measures

4.1. Description of first aid measures

|              |                                                                                                                                                                                                                                                                                                   |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye Contact  | If this product comes in contact with eyes: <ul style="list-style-type: none"><li>▶ Wash out immediately with water.</li><li>▶ If irritation continues, seek medical attention.</li><li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li></ul> |
| Skin Contact | If skin or hair contact occurs: <ul style="list-style-type: none"><li>▶ Flush skin and hair with running water (and soap if available).</li><li>▶ Seek medical attention in event of irritation.</li></ul>                                                                                        |
| Inhalation   | <ul style="list-style-type: none"><li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li><li>▶ Other measures are usually unnecessary.</li></ul>                                                                                                          |
| Ingestion    | <ul style="list-style-type: none"><li>▶ Immediately give a glass of water.</li></ul>                                                                                                                                                                                                              |

- ▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

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

See Section 11

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

- ▶ Polyethylene glycols are generally poorly absorbed orally and are mostly unchanged by the kidney.
- ▶ Dermal absorption can occur across damaged skin (e.g. through burns) leading to increased osmolality, anion gap metabolic acidosis, elevated calcium, low ionised calcium, CNS depression and renal failure.
- ▶ Treatment consists of supportive care.

[Ellenhorn and Barceloux: Medical Toxicology]

Propylene glycol is primarily a CNS depressant in large doses and may cause hypoglycaemia, lactic acidosis and seizures.

- ▶ The usual measures are supportive care and decontamination (Ipecac/ lavage/ activated charcoal/ cathartics), within 2 hours of exposure should suffice.
- ▶ Check the anion gap, arterial pH, renal function and glucose levels.

*Ellenhorn and Barceloux: Medical Toxicology*

## SECTION 5 Firefighting measures

### 5.1. Extinguishing media

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

### 5.2. Special hazards arising from the substrate or mixture

|                             |                                                                                                                                                                                            |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fire Incompatibility</b> | <ul style="list-style-type: none"> <li>▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result</li> </ul> |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 5.3. Advice for firefighters

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ Avoid spraying water onto liquid pools.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> </ul> |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>▶ May emit acrid smoke.</li> <li>▶ Mists containing combustible materials may be explosive.</li> </ul> <p>Combustion products include:<br/>carbon dioxide (CO<sub>2</sub>)<br/>other pyrolysis products typical of burning organic material.<br/>May emit poisonous fumes.</p>                                                                     |

## SECTION 6 Accidental release measures

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

See section 8

### 6.2. Environmental precautions

See section 12

### 6.3. Methods and material for containment and cleaning up

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Minor Spills</b> | <ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>▶ Wipe up.</li> <li>▶ Place in a suitable, labelled container for waste disposal.</li> </ul> |
| <b>Major Spills</b> | <p>Moderate hazard.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> </ul>                                                                                                                                                                                                                                                                                                                                                   |

Continued...

## COLOR SMOKE FLUID

- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ▶ Wear breathing apparatus plus protective gloves.
- ▶ Prevent, by any means available, spillage from entering drains or water course.
- ▶ No smoking, naked lights or ignition sources.
- ▶ Increase ventilation.
- ▶ Stop leak if safe to do so.
- ▶ Contain spill with sand, earth or vermiculite.
- ▶ Collect recoverable product into labelled containers for recycling.
- ▶ Absorb remaining product with sand, earth or vermiculite.
- ▶ Collect solid residues and seal in labelled drums for disposal.
- ▶ Wash area and prevent runoff into drains.
- ▶ If contamination of drains or waterways occurs, advise emergency services.

## 6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 Handling and storage

## 7.1. Precautions for safe handling

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safe handling                 | <ul style="list-style-type: none"> <li>▶ Avoid skin contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ <b>DO NOT</b> allow material to come in direct contact with human skin or eyes.</li> <li>▶ <b>DO NOT</b> allow material to come in contact with exposed food or food contact surfaces.</li> <li>▶ Suitable PPE must be worn at all times.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately. Launder contaminated clothing before re-use.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul> |
| Fire and explosion protection | See section 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Other information             | <p>Consider storage under inert gas.</p> <ul style="list-style-type: none"> <li>▶ Material is hygroscopic, i.e. absorbs moisture from the air. Keep containers well sealed in storage.</li> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Store in a cool, dry, well-ventilated area.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## 7.2. Conditions for safe storage, including any incompatibilities

|                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable container                                                             | <ul style="list-style-type: none"> <li>▶ Metal can or drum</li> <li>▶ Packaging as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Storage incompatibility                                                        | <ul style="list-style-type: none"> <li>▶ Glycols and their ethers undergo violent decomposition in contact with 70% perchloric acid. This seems likely to involve formation of the glycol perchlorate esters (after scission of ethers) which are explosive, those of ethylene glycol and 3-chloro-1,2-propanediol being more powerful than glyceryl nitrate, and the former so sensitive that it explodes on addition of water.</li> </ul> <p>Alcohols</p> <ul style="list-style-type: none"> <li>▶ are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents.</li> <li>▶ reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen</li> <li>▶ react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium</li> <li>▶ should not be heated above 49 deg. C. when in contact with aluminium equipment</li> </ul> |
| Hazard categories in accordance with Regulation (EC) No 1272/2008 (Seveso III) | Not Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Qualifying quantity (tonnes) of dangerous substances as referred to            | Not Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

Continued...

in Article 3(10) for the application of

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

| Ingredient       | DNELs                                                                                                                                                                                 | PNECs                                                                                                                                                                                                                                          |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  | Exposure Pattern Worker                                                                                                                                                               | Compartment                                                                                                                                                                                                                                    |
| propylene glycol | Inhalation 168 mg/m³ (Systemic, Chronic)<br>Inhalation 10 mg/m³ (Local, Chronic)<br><i>Inhalation 50 mg/m³ (Systemic, Chronic) *</i><br><i>Inhalation 10 mg/m³ (Local, Chronic) *</i> | 260 mg/L (Water (Fresh))<br>183 mg/L (Water - Intermittent release)<br>26 mg/L (Water (Marine))<br>572 mg/kg sediment dw (Sediment (Fresh Water))<br>57.2 mg/kg sediment dw (Sediment (Marine))<br>50 mg/kg soil dw (Soil)<br>20000 mg/L (STP) |

\* Values for General Population

Occupational Exposure Limits (OEL)

| INGREDIENT DATA |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Source          | Ingredient    | Material name | TWA           | STEL          | Peak          | Notes         |
| Not Available   | Not Available | Not Available | Not Available | Not Available | Not Available | Not Available |

Not Applicable

MATERIAL DATA

for propylene glycol:

Saturated vapour concentration @ 20 deg C.= 65.8 ppm, 204.6 mg/m3; i.e higher concentrations can only occur as aerosols or at higher temperatures.

Odour Threshold: Practically odourless.

A small number of individuals show skin irritation or sensitisation from repeated or prolonged exposure to propylene glycol. A workplace environmental exposure limit (WEEL) has been established by AIHA and is thought to be protective against systemic effects.

8.2. Exposure controls

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                  |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| 8.2.1. Appropriate engineering controls | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.<br>The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process is done to reduce the risk.<br>Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.<br>Employers may need to use multiple types of controls to prevent employee overexposure. |                                  |
|                                         | General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                  |
|                                         | Type of Contaminant:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Air Speed:                       |
|                                         | solvent, vapours, degreasing etc., evaporating from tank (in still air)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.25-0.5 m/s (50-100 f/min)      |
|                                         | aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.5-1 m/s (100-200 f/min.)       |
|                                         | direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1-2.5 m/s (200-500 f/min)        |
|                                         | grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2.5-10 m/s (500-2000 f/min.)     |
|                                         | Within each range the appropriate value depends on:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                  |
|                                         | Lower end of the range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Upper end of the range           |
|                                         | 1: Room air currents minimal or favourable to capture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1: Disturbing room air currents  |
|                                         | 2: Contaminants of low toxicity or of nuisance value only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2: Contaminants of high toxicity |
|                                         | 3: Intermittent, low production.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3: High production, heavy use    |

Continued...

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                     | <div>4: Large hood or large air mass in motion</div> <div>4: Small hood - local control only</div> <p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>8.2.2. Individual protection measures, such as personal protective equipment</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Eye and face protection</b>                                                      | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields</li> <li>▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Skin protection</b>                                                              | See Hand protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Hands/feet protection</b>                                                        | <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>· frequency and duration of contact,</li> <li>· chemical resistance of glove material,</li> <li>· glove thickness and</li> <li>· dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>· When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>· When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>· Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>· Contaminated gloves should be replaced.</li> </ul> <p>As defined in ASTM F-739-96 in any application, gloves are rated as:</p> <ul style="list-style-type: none"> <li>· Excellent when breakthrough time &gt; 480 min</li> <li>· Good when breakthrough time &gt; 20 min</li> <li>· Fair when breakthrough time &lt; 20 min</li> <li>· Poor when glove material degrades</li> </ul> <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> <li>· Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.</li> <li>· Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> |
| <b>Body protection</b>                                                              | See Other protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Other protection</b>                                                             | <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C apron.</li> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> <li>▶ Eye wash unit.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Continued...

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

### 8.2.3. Environmental exposure controls

See section 12

## SECTION 9 Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                                       |                |                                                            |               |
|-------------------------------------------------------|----------------|------------------------------------------------------------|---------------|
| <b>Appearance</b>                                     | yellow         |                                                            |               |
| <b>Physical state</b>                                 | Liquid         | <b>Relative density (Water = 1)</b>                        | Not Available |
| <b>Odour</b>                                          | No Odour       | <b>Partition coefficient n-octanol / water</b>             | Not Available |
| <b>Odour threshold</b>                                | Not Available  | <b>Auto-ignition temperature (°C)</b>                      | Not Available |
| <b>pH (as supplied)</b>                               | Not Available  | <b>Decomposition temperature (°C)</b>                      | Not Available |
| <b>Melting point / freezing point (°C)</b>            | Not Available  | <b>Viscosity (cSt)</b>                                     | Not Available |
| <b>Initial boiling point and boiling range (°C)</b>   | Not Available  | <b>Molecular weight (g/mol)</b>                            | Not Available |
| <b>Flash point (°C)</b>                               | Not Available  | <b>Taste</b>                                               | Not Available |
| <b>Evaporation rate</b>                               | Not Available  | <b>Explosive properties</b>                                | Not Available |
| <b>Flammability</b>                                   | Not Applicable | <b>Oxidising properties</b>                                | Not Available |
| <b>Upper Explosive Limit (%)</b>                      | Not Available  | <b>Surface Tension (dyn/cm or mN/m)</b>                    | Not Available |
| <b>Lower Explosive Limit (%)</b>                      | Not Available  | <b>Volatile Component (%vol)</b>                           | Not Available |
| <b>Vapour pressure (kPa)</b>                          | Not Available  | <b>Gas group</b>                                           | Not Available |
| <b>Solubility in water</b>                            | Not Applicable | <b>pH as a solution (1%)</b>                               | Not Available |
| <b>Vapour density (Air = 1)</b>                       | Not Available  | <b>VOC g/L</b>                                             | Not Available |
| <b>Heat of Combustion (kJ/g)</b>                      | Not Available  | <b>Ignition Distance (cm)</b>                              | Not Available |
| <b>Flame Height (cm)</b>                              | Not Available  | <b>Flame Duration (s)</b>                                  | Not Available |
| <b>Enclosed Space Ignition Time Equivalent (s/m3)</b> | Not Available  | <b>Enclosed Space Ignition Deflagration Density (g/m3)</b> | Not Available |
| <b>Nanoform Solubility</b>                            | Not Available  | <b>Nanoform Particle Characteristics</b>                   | Not Available |
| <b>Particle Size</b>                                  | Not Available  |                                                            |               |

### 9.2. Other information

Not Available

## SECTION 10 Stability and reactivity

|                                                 |                                                                                                                                                                                                      |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>10.1.Reactivity</b>                          | See section 7.2                                                                                                                                                                                      |
| <b>10.2. Chemical stability</b>                 | <ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| <b>10.3. Possibility of hazardous reactions</b> | See section 7.2                                                                                                                                                                                      |
| <b>10.4. Conditions to avoid</b>                | See section 7.2                                                                                                                                                                                      |
| <b>10.5. Incompatible materials</b>             | See section 7.2                                                                                                                                                                                      |
| <b>10.6. Hazardous decomposition products</b>   | See section 5.3                                                                                                                                                                                      |

Continued...

## SECTION 11 Toxicological information

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

|                                      |                                                                   |
|--------------------------------------|-------------------------------------------------------------------|
| a) Acute Toxicity                    | Based on available data, the classification criteria are not met. |
| b) Skin Irritation/Corrosion         | Based on available data, the classification criteria are not met. |
| c) Serious Eye Damage/Irritation     | Based on available data, the classification criteria are not met. |
| d) Respiratory or Skin sensitisation | Based on available data, the classification criteria are not met. |
| e) Mutagenicity                      | Based on available data, the classification criteria are not met. |
| f) Carcinogenicity                   | Based on available data, the classification criteria are not met. |
| g) Reproductivity                    | Based on available data, the classification criteria are not met. |
| h) STOT - Single Exposure            | Based on available data, the classification criteria are not met. |
| i) STOT - Repeated Exposure          | Based on available data, the classification criteria are not met. |
| j) Aspiration Hazard                 | Based on available data, the classification criteria are not met. |

|              |                                                                                                                                                                                                                                                                                                                   |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhaled      | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. |
| Ingestion    | The material has <b>NOT</b> been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.                                                                                                                    |
| Skin Contact | The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.             |
| Eye          | Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).                                                                                          |
| Chronic      | Long-term exposure to the product is not thought to produce chronic effects adverse to health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.                                                                                |

| COLOR SMOKE FLUID   | TOXICITY                                           | IRRITATION                                                       |
|---------------------|----------------------------------------------------|------------------------------------------------------------------|
|                     | Not Available                                      | Not Available                                                    |
| propylene glycol    | TOXICITY                                           | IRRITATION                                                       |
|                     | Dermal (rabbit) LD50: 11890 mg/kg <sup>[2]</sup>   | Eye (Rodent - rabbit): 100mg - Mild                              |
|                     | Inhalation (Rat) LC50: >44.9 mg/l4h <sup>[1]</sup> | Eye (Rodent - rabbit): 500mg/24H - Mild                          |
|                     | Oral (Rat) LD50: 20000 mg/kg <sup>[2]</sup>        | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                     |                                                    | Skin (Human - child): 30%/96H(continuous) - Moderate             |
|                     |                                                    | Skin (Human - man): 10%/2D                                       |
|                     |                                                    | Skin (Human - woman): 30%/96H - Mild                             |
|                     |                                                    | Skin (Human): 104mg/3D (intermittent) - Moderate                 |
|                     |                                                    | Skin (Human): 20%                                                |
|                     |                                                    | Skin (Human): 500mg/7D - Mild                                    |
|                     |                                                    | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |
| C.I. Acid Yellow 23 | TOXICITY                                           | IRRITATION                                                       |
|                     | Oral (Rat) LD50: >2000 mg/kg <sup>[2]</sup>        | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                     |                                                    | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |

**Legend:**

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS.  
Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

|                           |   |                        |   |
|---------------------------|---|------------------------|---|
| Acute Toxicity            | ✗ | Carcinogenicity        | ✗ |
| Skin Irritation/Corrosion | ✗ | Reproductivity         | ✗ |
| Serious Eye               | ✗ | STOT - Single Exposure | ✗ |

Continued...

## COLOR SMOKE FLUID

| Damage/Irritation                 |   |                          |   |
|-----------------------------------|---|--------------------------|---|
| Respiratory or Skin sensitisation | ✗ | STOT - Repeated Exposure | ✗ |
| Mutagenicity                      | ✗ | Aspiration Hazard        | ✗ |

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## 11.2 Information on other hazards

## 11.2.1 Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

## 11.2.2 Other information

See Section 11.1

## SECTION 12 Ecological information

## 12.1. Toxicity

| COLOR SMOKE FLUID | Endpoint      | Test Duration (hr) | Species       | Value         | Source        |
|-------------------|---------------|--------------------|---------------|---------------|---------------|
|                   | Not Available | Not Available      | Not Available | Not Available | Not Available |

  

| propylene glycol | Endpoint  | Test Duration (hr) | Species                       | Value      | Source |
|------------------|-----------|--------------------|-------------------------------|------------|--------|
|                  | EC50      | 72h                | Algae or other aquatic plants | 19300mg/l  | 2      |
|                  | EC50      | 48h                | Crustacea                     | >114.4mg/L | 4      |
|                  | EC50      | 96h                | Algae or other aquatic plants | 19000mg/l  | 2      |
|                  | NOEC(ECx) | 336h               | Algae or other aquatic plants | <5300mg/l  | 1      |
|                  | LC50      | 96h                | Fish                          | 710mg/L    | 4      |

  

| C.I. Acid Yellow 23 | Endpoint  | Test Duration (hr) | Species                       | Value    | Source |
|---------------------|-----------|--------------------|-------------------------------|----------|--------|
|                     | BCF       | 1008h              | Fish                          | <0.29    | 7      |
|                     | EC50      | 72h                | Algae or other aquatic plants | >125mg/l | 2      |
|                     | EC50      | 48h                | Crustacea                     | >120mg/l | 2      |
|                     | EC50(ECx) | 48h                | Crustacea                     | >120mg/l | 2      |
|                     | LC50      | 96h                | Fish                          | >120mg/l | 2      |

  

**Legend:** Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. US EPA, Ecotox database - Aquatic Toxicity Data 4. ECETOC Aquatic Hazard Assessment Data 5. NITE (Japan) - Bioconcentration Data 6. METI (Japan) - Bioconcentration Data 7. Vendor Data

**DO NOT** discharge into sewer or waterways.

## 12.2. Persistence and degradability

| Ingredient          | Persistence: Water/Soil | Persistence: Air |
|---------------------|-------------------------|------------------|
| propylene glycol    | LOW                     | LOW              |
| C.I. Acid Yellow 23 | HIGH                    | HIGH             |

## 12.3. Bioaccumulative potential

| Ingredient          | Bioaccumulation |
|---------------------|-----------------|
| propylene glycol    | LOW (BCF = 1)   |
| C.I. Acid Yellow 23 | LOW (BCF = 3)   |

## 12.4. Mobility in soil

| Ingredient          | Mobility              |
|---------------------|-----------------------|
| propylene glycol    | HIGH (Log KOC = 1)    |
| C.I. Acid Yellow 23 | LOW (Log KOC = 79.38) |

## 12.5. Results of PBT and vPvB assessment

Continued...

## COLOR SMOKE FLUID

|                     | P                 | B                 | T                 | PBT criteria fulfilled? | vP                | vB                | vPvB criteria fulfilled? |
|---------------------|-------------------|-------------------|-------------------|-------------------------|-------------------|-------------------|--------------------------|
| COLOR SMOKE FLUID   | No data available | No data available | No data available | No                      | No data available | No data available | No                       |
| propylene glycol    | ✓                 | ✗                 | ✗                 | No                      | ✗                 | ✗                 | No                       |
| C.I. Acid Yellow 23 | ✓                 | ✗                 | ✗                 | No                      | ✗                 | ✗                 | No                       |

**12.6. Endocrine disrupting properties**

No evidence of endocrine disrupting properties were found in the current literature.

**12.7. Other adverse effects**

No evidence of ozone depleting properties were found in the current literature.

**SECTION 13 Disposal considerations****13.1. Waste treatment methods**

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product / Packaging disposal</b> | <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> <li>▶ Bury or incinerate residue at an approved site.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul> |
| <b>Waste treatment options</b>      | Not Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Sewage disposal options</b>      | Not Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**SECTION 14 Transport information****Labels Required**

|                         |    |
|-------------------------|----|
| <b>Marine Pollutant</b> | NO |
|-------------------------|----|

**Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

|                                           |                                |                |
|-------------------------------------------|--------------------------------|----------------|
| <b>14.1. UN number or ID number</b>       | Not Applicable                 |                |
| <b>14.2. UN proper shipping name</b>      | Not Applicable                 |                |
| <b>14.3. Transport hazard class(es)</b>   | Class                          | Not Applicable |
|                                           | Subsidiary Hazard              | Not Applicable |
| <b>14.4. Packing group</b>                | Not Applicable                 |                |
| <b>14.5. Environmental hazard</b>         | Not Applicable                 |                |
| <b>14.6. Special precautions for user</b> | Hazard identification (Kemler) | Not Applicable |
|                                           | Classification code            | Not Applicable |
|                                           | Hazard Label                   | Not Applicable |
|                                           | Special provisions             | Not Applicable |
|                                           | Limited quantity               | Not Applicable |
|                                           | Transport Category             | Not Applicable |
|                                           | Tunnel Restriction Code        | Not Applicable |

Continued...

**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

|                                    |                                                           |                |
|------------------------------------|-----------------------------------------------------------|----------------|
| 14.1. UN number                    | Not Applicable                                            |                |
| 14.2. UN proper shipping name      | Not Applicable                                            |                |
| 14.3. Transport hazard class(es)   | ICAO/IATA Class                                           | Not Applicable |
|                                    | ICAO / IATA Subsidiary Hazard                             | Not Applicable |
|                                    | ERG Code                                                  | Not Applicable |
| 14.4. Packing group                | Not Applicable                                            |                |
| 14.5. Environmental hazard         | Not Applicable                                            |                |
| 14.6. Special precautions for user | Special provisions                                        | Not Applicable |
|                                    | Cargo Only Packing Instructions                           | Not Applicable |
|                                    | Cargo Only Maximum Qty / Pack                             | Not Applicable |
|                                    | Passenger and Cargo Packing Instructions                  | Not Applicable |
|                                    | Passenger and Cargo Maximum Qty / Pack                    | Not Applicable |
|                                    | Passenger and Cargo Limited Quantity Packing Instructions | Not Applicable |
|                                    | Passenger and Cargo Limited Maximum Qty / Pack            | Not Applicable |

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

|                                    |                        |                |
|------------------------------------|------------------------|----------------|
| 14.1. UN number                    | Not Applicable         |                |
| 14.2. UN proper shipping name      | Not Applicable         |                |
| 14.3. Transport hazard class(es)   | IMDG Class             | Not Applicable |
|                                    | IMDG Subsidiary Hazard | Not Applicable |
| 14.4. Packing group                | Not Applicable         |                |
| 14.5. Environmental hazard         | Not Applicable         |                |
| 14.6. Special precautions for user | EMS Number             | Not Applicable |
|                                    | Special provisions     | Not Applicable |
|                                    | Limited Quantities     | Not Applicable |

**Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

|                                    |                     |                |
|------------------------------------|---------------------|----------------|
| 14.1. UN number                    | Not Applicable      |                |
| 14.2. UN proper shipping name      | Not Applicable      |                |
| 14.3. Transport hazard class(es)   | Not Applicable      | Not Applicable |
| 14.4. Packing group                | Not Applicable      |                |
| 14.5. Environmental hazard         | Not Applicable      |                |
| 14.6. Special precautions for user | Classification code | Not Applicable |
|                                    | Special provisions  | Not Applicable |
|                                    | Limited quantity    | Not Applicable |
|                                    | Equipment required  | Not Applicable |
|                                    | Fire cones number   | Not Applicable |

**14.7. Maritime transport in bulk according to IMO instruments****14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

**14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

| Product name     | Group          |
|------------------|----------------|
| propylene glycol | Not Applicable |

Continued...

| Product name        | Group          |
|---------------------|----------------|
| C.I. Acid Yellow 23 | Not Applicable |

**14.7.3. Transport in bulk in accordance with the IGC Code**

| Product name        | Ship Type      |
|---------------------|----------------|
| propylene glycol    | Not Applicable |
| C.I. Acid Yellow 23 | Not Applicable |

**SECTION 15 Regulatory information****15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture****propylene glycol is found on the following regulatory lists**

Europe EC Inventory

Europe European Customs Inventory of Chemical Substances- ECICS

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

**C.I. Acid Yellow 23 is found on the following regulatory lists**

EU Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products - Annex III - List of Substances which cosmetic products must not contain except subject to the restrictions laid down

Europe EC Inventory

Europe European Customs Inventory of Chemical Substances- ECICS

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

**Additional Regulatory Information**

Not Applicable

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

**Information according to 2012/18/EU (Seveso III):**

| Seveso Category | Not Available |
|-----------------|---------------|
|-----------------|---------------|

**15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

**National Inventory Status**

| National Inventory                                | Status                                                                                                                                                                                                       |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Australia - AIIC / Australia Non-Industrial Use   | Yes                                                                                                                                                                                                          |
| Canada - DSL                                      | Yes                                                                                                                                                                                                          |
| Canada - NDSL                                     | No (propylene glycol; C.I. Acid Yellow 23)                                                                                                                                                                   |
| China - IECSC                                     | Yes                                                                                                                                                                                                          |
| Europe - EINEC / ELINCS / NLP                     | Yes                                                                                                                                                                                                          |
| Japan - ENCS                                      | Yes                                                                                                                                                                                                          |
| Korea - KECI                                      | Yes                                                                                                                                                                                                          |
| New Zealand - NZIoC                               | Yes                                                                                                                                                                                                          |
| Philippines - PICCS                               | Yes                                                                                                                                                                                                          |
| USA - TSCA                                        | All chemical substances in this product have been designated as TSCA Inventory 'Active'                                                                                                                      |
| Taiwan - TCSI                                     | Yes                                                                                                                                                                                                          |
| Mexico - INSQ                                     | Yes                                                                                                                                                                                                          |
| Vietnam - NCI                                     | Yes                                                                                                                                                                                                          |
| Russia - FBEPH                                    | Yes                                                                                                                                                                                                          |
| UAE - Control List (Banned/Restricted Substances) | No (propylene glycol; C.I. Acid Yellow 23)                                                                                                                                                                   |
| <b>Legend:</b>                                    | <p>Yes = All CAS declared ingredients are on the inventory</p> <p>No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.</p> |

## SECTION 16 Other information

|               |            |
|---------------|------------|
| Revision Date | 12/01/2026 |
| Initial Date  | 02/01/2026 |

### Full text Risk and Hazard codes

#### Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

#### Definitions and abbreviations

- PC - TWA: Permissible Concentration-Time Weighted Average
- PC - STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit,
- IDLH: Immediately Dangerous to Life or Health Concentrations
- ES: Exposure Standard
- OSF: Odour Safety Factor
- NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- MARPOL: International Convention for the Prevention of Pollution from Ships
- IMSBC: International Maritime Solid Bulk Cargoes Code
- IGC: International Gas Carrier Code
- IBC: International Bulk Chemical Code
- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory
- INSQ: Inventario Nacional de Sustancias Químicas
- NCI: National Chemical Inventory
- FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances