

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.02.2023

Version number 3

Revision: 28.02.2023

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

· **1.1 Product identifier**

· **Trade name: Retarder**

· **Article number: Series PL018**

· **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.

· **Application of the substance / the mixture**

Additive

Printig ink and / or printing ink related material

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

· **Manufacturer/Supplier:**

· COMEC ITALIA SRL

· Piazzale del lavoro 149

· 21044 Cavarina (VA) - ITALIA

· Tel. +39 0331 219516

· Fax +39 0331 216161

· info@comec-italia.it

· Edgardo Baggini

· **Further information obtainable from:** Product safety department

· **1.4 Emergency telephone number:** CENTRO ANTIVELENI OSPEDALE NIGUARDA MILANO Tel. 02/66101029 (24/24h)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3

H226 Flammable liquid and vapour.



GHS08 health hazard

Repr. 2

H361 Suspected of damaging fertility or the unborn child.

Asp. Tox. 1

H304 May be fatal if swallowed and enters airways.



GHS05 corrosion

Eye Dam. 1

H318 Causes serious eye damage.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

STOT SE 3

H336 May cause drowsiness or dizziness.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.02.2023

Version number 3

Revision: 28.02.2023

Trade name: Retarder

(Contd. of page 1)

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

The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS02 GHS05 GHS07 GHS08 GHS09

Signal word Danger**Hazard-determining components of labelling:**

butyl glycollate

Hydrocarbon, C10, aromatics, <1% naphthalene

Hazard statements

H226 Flammable liquid and vapour.

H318 Causes serious eye damage.

H361 Suspected of damaging fertility or the unborn child.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P331 Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

| | | |
|--|---|----------|
| CAS: 1189173-42-9 EC number: 918-811-1 Reg.nr.: 01-2119463583-xxxx | Hydrocarbon, C10, aromatics, <1% naphthalene ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336 | 25-50% |
| CAS: 7397-62-8 EINECS: 230-991-7 Reg.nr.: 01-2119514685-36-xxxx | butyl glycollate ⚠ Repr. 2, H361; ⚠ Eye Dam. 1, H318 | 10-25% |
| CAS: 54839-24-6 EINECS: 259-370-9 Index number: 603-177-00-8 Reg.nr.: 01-2119475116-39-xxxx | 2-ethoxy-1-methylethyl acetate ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336 | ≥10-<20% |

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.02.2023

Version number 3

Revision: 28.02.2023

Trade name: Retarder

(Contd. of page 2)

| | | |
|--|--|----------|
| CAS: 108-94-1 EINECS: 203-631-1 Index number: 606-010-00-7 Reg.nr.: 01-2119453616-35-xxxx | cyclohexanone ⚠ Flam. Liq. 3, H226; ⚠ Acute Tox. 4, H332 | 10-25% |
| CAS: 124-68-5 Reg.nr.: 01-2119475788-16-xxxx | 2-amino-2-methylpropanol ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412 | ≥1-<2.5% |

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:**

Supply fresh air; consult doctor in case of complaints.

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

· **After skin contact:** Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** Call for a doctor immediately.

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

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· 5.3 Advice for firefighters

· **Protective equipment:** Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

· 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.02.2023

Version number 3

Revision: 28.02.2023

Trade name: Retarder

(Contd. of page 3)

See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Prevent formation of aerosols.
Open and handle receptacle with care.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.
Keep respiratory protective device available.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Prevent any seepage into the ground.
Store in a cool location.
Provide floor trough without outlet.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.

· **Storage class:** 3

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

CAS: 108-94-1 cyclohexanone

| | |
|-------|---|
| IOELV | Short-term value: 81.6 mg/m ³ , 20 ppm |
| | Long-term value: 40.8 mg/m ³ , 10 ppm |
| | Skin |

· **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

· **Appropriate engineering controls** No further data; see item 7.

· Individual protection measures, such as personal protective equipment

· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Pregnant women should strictly avoid inhalation or skin contact.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.02.2023

Version number 3

Revision: 28.02.2023

Trade name: Retarder

(Contd. of page 4)

- **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product 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.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye/face protection**



Goggles recommended during refilling

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Physical state**

Fluid

- **Colour:**

According to product specification

- **Odour:**

Characteristic

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

Undetermined.

- **Boiling point or initial boiling point and boiling range**

156 °C (312.8 °F)

- **Flammability**

Flammable.

- **Lower and upper explosion limit**

- **Lower:**

1.3 Vol %

- **Upper:**

9.4 Vol %

- **Flash point:**

43 °C (109.4 °F) (Abel Pensky)

- **Ignition temperature:**

405 °C (761 °F)

- **Decomposition temperature:**

Not determined.

- **pH**

Not determined.

- **Viscosity:**

- **Kinematic viscosity**

Not determined.

- **Dynamic:**

Not determined.

- **Solubility**

- **water:**

Not miscible or difficult to mix.

- **Partition coefficient n-octanol/water (log value)**

Not determined.

- **Vapour pressure at 20 °C (68 °F):**

5 hPa (3.8 mm Hg)

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.02.2023

Version number 3

Revision: 28.02.2023

Trade name: Retarder

(Contd. of page 5)

| | |
|--|---|
| · Density and/or relative density | |
| · Density at 20 °C (68 °F): | ≥0.93 g/cm ³ (≥7.76 lbs/gal) |
| · Relative density | Not determined. |
| · Vapour density | Not determined. |
| 9.2 Other information | |
| · Appearance: | |
| · Form: | Fluid |
| · Important information on protection of health and environment, and on safety. | |
| · Auto-ignition temperature: | Product is not selfigniting. |
| · Explosive properties: | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · Solvent separation test: | |
| · VOC (EC) | ≥79.04 % |
| · Change in condition | |
| · Evaporation rate | Not determined. |
| Information with regard to physical hazard classes | |
| · Explosives | Void |
| · Flammable gases | Void |
| · Aerosols | Void |
| · Oxidising gases | Void |
| · Gases under pressure | Void |
| · Flammable liquids | Flammable liquid and vapour. |
| · Flammable solids | Void |
| · Self-reactive substances and mixtures | Void |
| · Pyrophoric liquids | Void |
| · Pyrophoric solids | Void |
| · Self-heating substances and mixtures | Void |
| · Substances and mixtures, which emit flammable gases in contact with water | Void |
| · Oxidising liquids | Void |
| · Oxidising solids | Void |
| · Organic peroxides | Void |
| · Corrosive to metals | Void |
| · Desensitised explosives | Void |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

EU

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.02.2023

Version number 3

Revision: 28.02.2023

Trade name: Retarder

(Contd. of page 6)

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Suspected of damaging fertility or the unborn child.
- **STOT-single exposure** May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** May be fatal if swallowed and enters airways.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue** 08 03 12: waste ink containing dangerous substances

(Contd. on page 8)

EU

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.02.2023

Version number 3




Revision: 28.02.2023

Trade name: Retarder

(Contd. of page 7)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

| | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, IMDG, IATA | UN1210 |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA | 1210 PRINTING INK RELATED MATERIAL, ENVIRONMENTALLY HAZARDOUS PRINTING INK RELATED MATERIAL, MARINE POLLUTANT PRINTING INK RELATED MATERIAL |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, IMDG | <div style="display: flex; align-items: center; gap: 10px;">   </div> |
| <ul style="list-style-type: none"> · Class · Label | 3 Flammable liquids. 3 |
| <ul style="list-style-type: none"> · IATA | <div style="display: flex; align-items: center; gap: 10px;">  </div> |
| <ul style="list-style-type: none"> · Class · Label | 3 Flammable liquids. 3 |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | III |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): | Product contains environmentally hazardous substances: Hydrocarbon, C10, aromatics, <1% naphthalene Symbol (fish and tree) Symbol (fish and tree) |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category | Warning: Flammable liquids. 30 F-E,S-D A |
| <ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable. |

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.02.2023

Version number 3

Revision: 28.02.2023

Trade name: Retarder

(Contd. of page 8)

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **Transport category**

3

· **Tunnel restriction code**

D/E

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN 1210 PRINTING INK RELATED MATERIAL, 3, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category**

E2 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

EU

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.02.2023

Version number 3

Revision: 28.02.2023

Trade name: Retarder

(Contd. of page 9)

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H226 Flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H336 May cause drowsiness or dizziness.
 H361 Suspected of damaging fertility or the unborn child.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

- **Department issuing SDS:** Product safety department

- **Date of previous version:** 14.02.2023

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 3: Flammable liquids – Category 3
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 Repr. 2: Reproductive toxicity – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 Asp. Tox. 1: Aspiration hazard – Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3