

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

- **1.1 Product identifier**
- **Trade name:** *Farbeindringprüfung Farbstoff*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use**
 - SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
 - SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Application of the substance / the mixture**
 - Metal working auxiliary
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 - CANTESCO -
 - KEMPER SYSTEM GmbH & Co. KG
 - Boschstr. 14 - 16
 - 48653 Coesfeld
 - Telefon : +49 (0) 02541/920-0
 - Telefax : +49 (0) 02541/920-285
 - E-Mail: MSDS@KEMPER-SYSTEM.COM
- **Further information obtainable from:**
 - Produktmanagement
- **1.4 Emergency telephone number:**
 - Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen
 - Langenbeckstraße 1; Gebäude 601; 55131 Mainz
 - Tel. Nr.: +49 (0)6131 / 19 24 0
 - Universitätsmedizin der Johannes Gutenberg-Universität Mainz

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

- **Hazard pictograms**

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



GHS02 GHS07

- **Signal word**

Danger

- **Hazard-determining components of labelling:**

- **Hazard statements**

Distillates (petroleum), hydrotreated light

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H319 Causes serious eye irritation.

- **Precautionary statements**

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P251

Do not pierce or burn, even after use.

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- P211 Do not spray on an open flame or other ignition source.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 EUH066 Repeated exposure may cause skin dryness or cracking.

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

SECTION 3: Composition/information on ingredients

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

CAS: 106-97-8 EINECS: 203-448-7	butane Flam. Gas 1, H220; Press. Gas C, H280	25-50%
CAS: 64742-47-8 EINECS: 265-149-8	Distillates (petroleum), hydrotreated light Asp. Tox. 1, H304; Aquatic Chronic 3, H412	12,5-25%
CAS: 112-34-5 EINECS: 203-961-6	2-(2-butoxyethoxy)ethanol Eye Irrit. 2, H319	12,5-25%
CAS: 74-98-6 EINECS: 200-827-9	propane Flam. Gas 1, H220; Press. Gas C, H280	12,5-25%
CAS: 102-71-6 EINECS: 203-049-8	2,2',2''-nitrilotriethanol Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	2,5-10%
CAS: 75-28-5 EINECS: 200-857-2	isobutane Flam. Gas 1, H220; Press. Gas C, H280	0,5-2,5%
	substituted polyglycol Eye Dam. 1, H318; Acute Tox. 4, H302	0,5-2,5%
	xanthene dye Acute Tox. 4, H302; Aquatic Chronic 3, H412	0,5-2,5%

- **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**

- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation. Supply fresh air; consult doctor in case of complaints.
 - **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
 - **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
 - **After swallowing:** If symptoms persist consult doctor.

- **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.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
Alcohol resistant foam
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections** See Section 7 for information on safe handling.
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** Store in cool, dry place in tightly closed receptacles.
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
Observe official regulations on storing packagings with pressurised containers.
- **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.
Protect from heat and direct sunlight.
- **Storage class:** 2 B
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

106-97-8 butane

WEL	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1,3-diene)
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112-34-5 2-(2-butoxyethoxy)ethanol

WEL Short-term value: 101.2 mg/m³, 15 ppm
 Long-term value: 67.5 mg/m³, 10 ppm

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

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

*The usual precautionary measures are to be adhered to when handling chemicals.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the eyes and skin.
 Not necessary if room is well-ventilated.*

- **Respiratory protection:**

- **Protection of hands:**



Protective gloves

*Only use chemical-protective gloves with CE-labelling of category III.
 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.*

Recommended thickness of the material: ≥ 0.4 mm

Synthetic rubber gloves

- **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.*

*The determined penetration times according to EN 374 part III are not performed
 under practical conditions. Therefore a maximum wearing time, which corresponds
 to 50% of the penetration time, is recommended.*

Value for the permeation: Level ≥ 2

- **As protection from splashes gloves
 made of the following materials are
 suitable:**

- **Eye protection:**

PVC or PE gloves



Tightly sealed goggles

- **Body protection:**

*Protective work clothing
 Impervious protective clothing*

SECTION 9: Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: *Aerosol*

Colour: *Red*

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- Odour:	Characteristic
- Odour threshold:	Not determined.
- pH-value:	Not determined.
- Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Not applicable, as aerosol.*
- Flash point:	Not applicable, as aerosol.*
- Flammability (solid, gaseous):	Not applicable.
- Ignition temperature:	225 °C
- Decomposition temperature:	Not determined.
- Self-igniting:	Product is not selfigniting.
- Danger of explosion:	Not determined.
- Explosion limits:	
Lower:	0,5 Vol %
Upper:	10,9 Vol %
- Density at 20 °C:	0.75 g/cm ³
- Relative density	Not determined.
- Vapour density	Not determined.
- Evaporation rate	Not applicable.
- Solubility in / Miscibility with water:	Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water):	Not determined.
- Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
- Solvent content:	
VOC (EC)	97.43 %
- 9.2 Other information	No further relevant information available.

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.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects	
- Acute toxicity	Based on available data, the classification criteria are not met.

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- LD/LC50 values relevant for classification:
64742-47-8 Distillates (petroleum), hydrotreated light

Oral	LD50	> 2000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rab)
	LC50 72 hr.	10 - 100 mg/l (ALGAE)

112-34-5 2-(2-butoxyethoxy)ethanol

Oral	LD50	5660 mg/kg (rat)
Dermal	LD50	4000 mg/kg (rabbit)

102-71-6 2,2',2''-nitrioltriethanol

Oral	LD50	8000 mg/kg (rat)
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substituted polyglycol

Oral	LD50	500 mg/kg (ATE)
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xanthene dye

Oral	LD50	500 mg/kg (ATE)
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- Primary irritant effect:

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity:
64742-47-8 Distillates (petroleum), hydrotreated light

LC50/96 h	10 - 100 mg/l (fish)
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112-34-5 2-(2-butoxyethoxy)ethanol

IC50	>100 mg/l (Leuciscus idus (Aland))
EC50 - OECD202	>100 mg/l (DESMODESMUS SUBSPICATUS)
EC50/48 h	>100 mg/l (daphnia)

74-98-6 propane

LC50/96 h	49.9 mg/l (PISCIS - Fisch)
EC50/48 h	27.1 mg/l (daphnia)
EC50 / 72h	11.9 mg/l (ALGAE)

- **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.

- Ecotoxicological effects:

- **Remark:** Harmful to fish

- Additional ecological information:

- **General notes:** Harmful to 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.

- 12.5 Results of PBT and vPvB assessment

- **PBT:** Not applicable.

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- **vPvB:** Not applicable.
 - **12.6 Other adverse effects** No further relevant information available.

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

- | | |
|-----------|---|
| 16 05 04* | gases in pressure containers (including halons) containing hazardous substances |
| 15 01 11* | metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers |

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

SECTION 14: Transport information

- **14.1 UN-Number**
 - **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
 - **ADR** 1950 AEROSOLS
 - **IMDG** AEROSOLS
 - **IATA** Aerosols

- **14.3 Transport hazard class(es)**
 - **ADR**



- **Class** 2 5F Gases.
 - **Label** 2.1

- **IMDG, IATA**



- **Class** 2 Gases.
 - **Label** 2.1

- **14.4 Packing group**
 - **ADR, IMDG, IATA** Void

- **14.5 Environmental hazards:** Not applicable.

- **14.6 Special precautions for user** Warning: Gases.
 - **Danger code (Kemler):** -
 - **EMS Number:** F-D,S-U

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- Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
- Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
- Transport/Additional information:	
- ADR	
- Limited quantities (LQ)	1L
- Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
- Transport category	2
- Tunnel restriction code	D
- IMDG	
- Limited quantities (LQ)	1L
- Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
- UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

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** P3a FLAMMABLE AEROSOLS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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**
 - H220 Extremely flammable gas.
 - H280 Contains gas under pressure; may explode if heated.
 - H302 Harmful if swallowed.
 - H304 May be fatal if swallowed and enters airways.
 - H315 Causes skin irritation.
 - H318 Causes serious eye damage.
 - H319 Causes serious eye irritation.
 - H335 May cause respiratory irritation.

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- **Department issuing MSDS:**

research & development

- **Contact:**

research & development

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases, Hazard Category 1

Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas C: Gases under pressure: Compressed gas

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

- * **Data compared to the previous version altered.**