

Material Safety Data Sheet

according to EC-Regulation No. 1272/2008

updated: 03/2016

Version: 1.0

Section I - Product and Company Information

| | |
|---------------------------------|--|
| Product Name | PromoFluor-700P, carboxylic acid |
| Product Number | PK-PF700P-0-01 |
| Product Classification | Cell Biology Reagents |
| Company and Contact Information | PromoCell GmbH Sickingenstrasse 63/65 69126 Heidelberg Germany Phone: +49 6221 - 649 34 0 E-mail: info@promokine.info |

Section II - Hazard Information

Classification of the substance or mixture:

Product Definition: Mono-constituent substance

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]:

Eye Dam. 1, H318

Classification according to EU Directives 67/548/EEC [DSD] Europe:

Xi, R41

See section 16 for the full text of the R phrases or H statement declared above;
See section 11 for more detailed information on health effects and symptoms.

Label elements:

Hazard Pictograms:



Signal Word:

Danger

Hazard Statements:

Causes serious eye damage.

Precautionary Statements

Prevention:

Wear eye or face protection. Wash hands thoroughly after handling.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Immediately call a POISON CENTER or physician.

Storage:

not applicable.

Disposal:

not applicable.

Supplemental Label Elements: not applicable.

Special Packaging Requirements:

Containers to be fitted with child-resistant fastenings: not applicable.

Tactile warning of danger:

not applicable.

Other hazards:

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII:

No, P: Not available. B: Not available. T: No.

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII: Not available.

Other hazards which do not result in classification: None known.

Section III - Composition/Information on Ingredients

Substance Mixture: Mono-constituent substance.

| Product/ ingredient Name: | Identifiers: % | Classification 67/548/EEC: | Regulation (EC) No. 1272/2008[CLP]: | Type |
|-----------------------------|----------------|----------------------------|-------------------------------------|------|
| See Section I, Product Name | - | Xi, R41 | Eye Dam. 1, H318 | [A] |

See section 16 for the full text of the R phrases or H statement declared above; There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section. | Type: [A] Constituent [B] Impurity [C] Stabilizing Additive

For research use only. Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

Section IV – First Aid Measures

Description of first aid measures

| | |
|------------------------------------|---|
| Eye Contact: | Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. |
| Inhalation: | Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact: | Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion: | Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open air/vay. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Protection of first-aiders: | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

Most important symptoms and effects, both acute and delayed

Potential acute health effects

| | |
|-------------------------------------|---|
| Eye contact: | Causes serious eye damage. |
| Inhalation: | May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system |
| Skin contact: | No known significant effects or critical hazards. |
| Ingestion: | May cause burns to mouth, throat and stomach. |
| Over-exposure signs/symptoms | |
| Eye contact: | Adverse symptoms may include the following: pain, watering, redness. |
| Inhalation: | No specific data. |
| Skin contact: | Adverse symptoms may include the following: pain or irritation, redness, blistering may occur. |
| Ingestion: | Adverse symptoms may include the following: stomach pains. |

Indication of any immediate medical attention and special treatment needed

| | |
|------------------------------|---|
| Notes to physician: | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments : | No specific treatment. |

Section V – Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

Special hazards arising from the substance or mixture

Hazards from the substance or mixture: No specific fire or explosion hazard. Hazardous combustion products: No specific data.

Advice for fire-fighters

Special precautions for fire-fighters:

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section VI – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Reference to other sections: See Section 1 for emergency contact information; See Section 8 for information on appropriate personal protective equipment; See Section 13 for additional waste treatment information.

Section VII – Handling and Storage

The information in this section contains generic advice and guidance. The list of Identified Uses in section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Precautions for safe handling

Protective Measures: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities:

Do not store above the following temperature: 4°C (39.2°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions: Not available.

Section VIII – Exposure Controls/Personal Protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Control parameters Occupational exposure limits (Europe)

No exposure limit value known.

Recommended monitoring procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived effect levels:

No DELs available.

Predicted effect concentrations:

No PEC available.

Exposure controls

Appropriate engineering controls:

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentiality contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection: Hand protection:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the give manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Skin protection:

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Other

skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection:

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section IX – Physical and Chemical Properties

Information on basic physical and chemical properties

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|-------------------------------|--|---|----------------|----------------------|
| Physical state and appearance | NHS ester, Carboxylic Acid, Maleimide, Amino-modified Label: Solid; Biotin conjugate: lyophilized; dUTP conjugate: liquid. | Color: Not available (varies for the different PromoFluor dyes) | Odor: Odorless | Taste: Not available |
| Molecular Weight | See data sheet. | | | |
| Molecular Formula | See data sheet. | | | |
| Dispersion Properties | See solubility in water. | | | |
| Solubility | See data sheet. | | | |

Odour threshold ; pH ; Melting point/freezing point ; Initial boiling point and boiling range ; Flash point ; Evaporation rate Burning time ; Burning rate ; Upper/lower flammability or explosive limits ; Vapour pressure ; Vapour density ; Relative density ; Partition coefficient: n-octanol/water ; Auto-ignition temperature ; Decomposition temperature ; Viscosity ; Explosive properties ; Oxidizing properties: Not available.
 Flammability (solid, gas): May be combustible at high temperature.
 Odour: Odourless.

Other Information: No additional information.

Section X – Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability: The product is stable.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No specific data.
Incompatible materials: No specific data.
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section XI – Toxicological Information

Information on toxicological effects

Acute toxicity: Conclusion/summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.
 Irritation/corrosion; Sensitizer; Mutagenicity; Carcinogenicity; Reproductive toxicity; Teratogenicity; Specific target organ toxicity (single exposure); Specific target organ toxicity (repeated exposure); Aspiration hazard:
Conclusion/Summary: Not available.
Information on the likely exposure: Routes of entry anticipated: Oral, Inhalation.
Potential acute health effects: Inhalation: May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.

Ingestion: May cause burns to mouth, throat and stomach.
Skin contact: No known significant effects or critical hazards.
Eye contact: Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation: No specific data.
Ingestion: Adverse symptoms may include the following: stomach pains
Skin contact: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur.
Eye contact: Adverse symptoms may include the following: pain, watering, redness. Delayed and immediate effects and also chronic effects from short and long term exposure.

Short term exposure: Potential immediate effects or Potential delayed effects:
Not available.

Long term exposure: Potential immediate effects or Potential delayed effects:
Not available.
Potential chronic health effects:
Not available.

Conclusion/Summary: General; Carcinogenicity; Mutagenicity; Teratogenicity; Developmental effects;
Fertility effects: No known significant effects or critical hazards.

Other information: Not available.

Section XII – Ecological Information

Toxicity Not available.
Persistence and degradability Not available.
Bioaccumulative potential Not available.

Mobility in soil

Soil/water partition coefficient (Koc): Not available.
Mobility: Not available.

Results of PBT and vPvB assessment

PBT: No. P: Not available. B: Not available. T: No.
vPvB: Not available. vP: Not available. vB: Not available.

Other adverse effects: No known significant effects or critical hazards.

Section XIII – Disposal Information

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Waste treatment methods

Product: Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Product: Hazardous waste: The classification of the product may meet the criteria for a hazardous waste.

Packaging: Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Packaging: Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section XIV – Transport Information

UN Number: (ADR/RID; AND; IMDG; IATA) Not regulated.
UN Proper Shipping Name: (ADR/RID; AND; IMDG; IATA) –
Transport hazard class(es): (ADR/RID; AND; IMDG; IATA) –
Packing Group: (ADR/RID; AND; IMDG; IATA) –
Environmental hazards: (ADR/RID; AND; IMDG; IATA) No
Special precautions for user: (ADR/RID; AND; IMDG; IATA) Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Additional Information: (ADR/RID; AND; IMDG; IATA) –
Transporting in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available

Section XV – Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization Substances of very high concern None of the components are listed.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:
Not applicable.
Other EU regulations: Europe inventory: Not determined. Black List Chemicals: Not listed.
Priority List Chemicals: Not listed
Integrated pollution prevention and control list (IPPC) -Air: Not listed.
Integrated pollution prevention and control list (IPPC) -Water: Not listed.
Chemical Safety Assessment: Not applicable.

Section XVI – Other Informations

Abbreviations and acronyms: ATE = Acute Toxicity Estimate; CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.1272/2008]; DNEL = Derived No Effect Level; EUH statement = CLP-specific Hazard statement; PNEC = Predicted No Effect Concentration; RRN = REACH Registration Number;

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification: Eye Dam. 1, H318 Justification: Expert judgement (Europe)
Full text of abbreviated H statements: H318 Causes serious eye damage.
Full text of classifications [CLP/GHS]: Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Full text of abbreviated R phrases: R41 - Risk of serious damage to eyes.
Full text of classifications [DSD/DPD]: Xi - Irritant

Disclaimer:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PromoCell shall not be held liable for any damage resulting from handling or from contact with the above product.

FOR IN VITRO RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC PROCEDURES.

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