

**Safety Data Sheet**  
 acc. to OSHA HCS

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Printing date 12/15/2016

Reviewed on 12/15/2016

Version number: 2

## 1 Identification

- **Product identifier**
- **Trade name:** 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride
- **Article number:** A3930
- **CAS Number:**  
81-88-9
- **EC number:**  
201-383-9
- **Application of the substance / the mixture** Laboratory chemical
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
AppliChem GmbH  
Ottoweg 4  
D-64291 Darmstadt
- **Information department:** Dept. Compliance
- **Emergency telephone number:** +49(0)6151 93570 (Inside normal business hours)

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 msds@applichem.com

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Eye Dam. 1 H318 Causes serious eye damage.
- **Label elements**
- **GHS label elements**  
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard statements**  
H318 Causes serious eye damage.
- **Precautionary statements**  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P273 Avoid release to the environment.  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 2  
 Fire = 0  
 Reactivity = 0

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US

**Trade name: 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride**

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

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

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
81-88-9 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride
- **Identification number(s)**
- **EC number:** 201-383-9

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Wash off with plenty of water.  
Immediately remove any clothing soiled by the product.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
make victim drink water (maximum of 2 drinking glasses)  
Call a doctor immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None
- **Special hazards arising from the substance or mixture**  
Development of hazardous combustion gases or vapours possible in the event of fire.  
In case of fire, the following can be released:  
Nitrogen oxides (NOx)  
Hydrogen chloride (HCl)  
CO, CO2
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Avoid formation of dust.

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**Trade name: 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylum chloride**

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*Do not inhale dust.*

*Avoid substance contact.*

*Ensure adequate ventilation*

· **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.*

· **Methods and material for containment and cleaning up:**

*Pick up mechanically.*

*Avoid generation of dusts.*

*Clean up affected area.*

· **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.*

· **Protective Action Criteria for Chemicals**

· **PAC-1:** Substance is not listed.

· **PAC-2:** Substance is not listed.

· **PAC-3:** Substance is not listed.

## 7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

*Prevent formation of dust.*

*Any deposit of dust which cannot be avoided must be regularly removed.*

· **Information about protection against explosions and fires:** *No special measures required.*

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** *Prevent any seepage into the ground.*

· **Information about storage in one common storage facility:** *Not required.*

· **Further information about storage conditions:**

*Open receptacle only under localized extractor facilities.*

*Keep container sealed.*

· **Recommended storage temperature:** *15-25 °C*

· **Storage class:** *10-13*

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

## 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** *No further data; see item 7.*

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:** *Not required.*

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

*Immediately remove all soiled and contaminated clothing.*

*Wash hands before breaks and at the end of work.*

*Avoid contact with the eyes.*

· **Breathing equipment:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.*

*Filter P2*

· **Protection of hands:**

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.*

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**Trade name: 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylum chloride**

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*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.*

· **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.*

· **For the permanent contact gloves made of the following materials are suitable:**

*Nitrile rubber, NBR*

*Recommended thickness of the material:  $\geq 0.11$  mm*

*Value for the permeation: Level  $\geq 480$  min*

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

*Nitrile rubber, NBR*

*Recommended thickness of the material:  $\geq 0.11$  mm*

*Value for the permeation: Level  $\geq 480$  min*

· **Eye protection:**



*Tightly sealed goggles*

· **Body protection:**

*Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.*

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

**Form:** Solid

**Color:** Green

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value (10 g/l) at 20 °C (68 °F):** 3-4

· **Change in condition**

**Melting point/Melting range:** 199-201 °C (390-394 °F)

**Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Ignition temperature:**

**Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

· **Vapor pressure:** Not applicable.

· **Density at 20 °C (68 °F):** 1.31 g/cm<sup>3</sup> (10.932 lbs/gal)

· **Bulk density at 20 °C (68 °F):** 250 kg/m<sup>3</sup>

· **Relative density** Not determined.

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**Trade name:** 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylum chloride

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- |   |  |
|---|--|
| · <b>Vapor density</b>  | Not applicable.                            |
| · <b>Evaporation rate</b>   | Not applicable.                            |
| · <b>Solubility in / Miscibility with Water at 20 °C (68 °F):</b> | 15 g/l                                     |
| · <b>Partition coefficient (n-octanol/water):</b>                 | Not determined.                            |
| · <b>Viscosity:</b>   |  |
| · <b>Dynamic:</b>   | Not applicable.                            |
| · <b>Kinematic:</b>   | Not applicable.                            |
| · <b>Other information</b>  | No further relevant information available. |

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** In the event of fire: See chapter 5

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**  
Quantitative data on the toxicological effect of this product are not available.

Components	Type	Value	Species
Oral LD50	>2000 mg/kg	(rat)	

- **Primary irritant effect:**
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** 3
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Type of test**

Effective concentration	Method	Assessment
EC50/48 h	22.9 mg/l (daphnia magna)	
LC50/96 h	10-100 mg/l (fish)	
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxical effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**  
Harmful to aquatic organisms

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**Trade name: 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylum chloride**

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Water hazard class 3 (Self-assessment): extremely hazardous for water  
Danger to drinking water if even extremely small quantities leak into the ground.

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Chemicals must be disposed of in compliance with the respective national regulations.  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:**  
Disposal must be made according to official regulations.  
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

### 14 Transport information

- |  |                 |
|--|-----------------|
| · <b>UN-Number</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>UN proper shipping name</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>Transport hazard class(es)</b>  |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   |                 |
| · <b>Class</b>   | Void            |
| · <b>Packing group</b>   |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  | Void            |
| · <b>Environmental hazards:</b>  |                 |
| · <b>Marine pollutant:</b>   | No              |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | Void            |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenicity categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.

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**Trade name: 9-(2-carboxyphenyl)-3,6-bis(diethylamino)xanthylium chloride**

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- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements**  
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** *Danger*
- **Hazard statements**  
*H318 Causes serious eye damage.*
- **Precautionary statements**  
*P260 Do not breathe dust/fume/gas/mist/vapors/spray.*  
*P273 Avoid release to the environment.*  
*P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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.*

- **Department issuing SDS:** Dept. Compliance
- **Contact:** Mr. Th. Stöckle
- **Date of preparation / last revision** 12/15/2016 / 1
- **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*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*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*