

# Safety Data Sheet

## according to 1907/2006/EC, Article 31

Printing date 12.03.2009

Version 12

Revision: 12.03.2009

### 1 Identification of substance:

- **Product details:**
- **Trade name: Wash Tank Cleaner**
- **Application of the substance / the preparation**  
 Photochemicals  
 Tank cleaner  
 Reserved for industrial and professional use.
- **Manufacturer/Supplier:**  
 ADEFO-CHEMIE GmbH  
 Justus-von-Liebig-Str. 24-26  
 D-63128 Dietzenbach  
 Tel.: +49 6074 84239-0  
 Fax: +49 6074 84239-63  
 E-Mail: [service@adefo-chemie.de](mailto:service@adefo-chemie.de)  
[www.adefo-chemie.de](http://www.adefo-chemie.de)
- **Informing department:**  
 Tel.: +49 6074 84239-0  
 Fax: +49 6074 84239-63  
 Competent person according to 1907/2006/EC, Annex II:  
 E-Mail: [kr@calbe-chemie.de](mailto:kr@calbe-chemie.de)
- **Emergency information:** Tel.: 0700-24112112 (CAL)

### 2 Hazards identification

- **Hazard designation:**



Xn Harmful  
 N Dangerous for the environment

- **Information pertaining to particular dangers for man and environment**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 22 Harmful if swallowed.

R 36 Irritating to eyes.

R 40 Limited evidence of a carcinogenic effect.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 63 Possible risk of harm to the unborn child.

- **Classification system**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

### 3 Composition/information on ingredients

- **Chemical characterization**

- **Description:** Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

CAS: 62-56-6 EINECS: 200-543-5	thiourea	Xn, N; R 22-40-51/53-63	50-75%
CAS: 77-92-9 EINECS: 201-069-1	citric acid	Xi; R 36	20-25%

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- **Additional information** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

- **General information** Instantly remove any clothing soiled by the product.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
Induce vomiting and call for medical help.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.  
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
sulphur dioxide (SO<sub>2</sub>)  
Nitrogen oxides (NO<sub>x</sub>)
- **Protective equipment:** Put on breathing apparatus.

### 6 Accidental release measures

- **Person-related safety precautions:**  
Wear protective clothing.  
Avoid causing dust.
- **Measures for environmental protection:**  
Do not allow product to reach sewage system or water bodies.
- **Measures for cleaning/collecting:**  
Collect mechanically.  
Dispose of contaminated material as waste according to item 13.
- **Additional information:**  
See Section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.

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- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed containers.
- **Storage class** LGK 13 (VCI-Concept)

## 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
The usual precautionary measures should be adhered to general rules for handling chemicals.  
Take off immediately all contaminated clothing  
Keep away from foodstuffs, beverages and food.  
Do not eat, drink or smoke while working.  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**  
Protective gloves.  
The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374.  
This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.  
Only use chemical-protective gloves with CE-labelling of category III.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
Nitrile rubber, NBR  
Recommended thickness of the material:  $\geq 0.11$  mm
- **Penetration time of glove material**  
Value for permeation: Level  $\geq 6$  (480 min)  
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.
- **As protection from splashes gloves made of the following materials are suitable:**  
Nitrile rubber, NBR  
Value for permeation: Level:  
 $\geq 6$  (480 min)
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

## 9 Physical and chemical properties:

### · General Information

<b>Form:</b>	Solid.
<b>Colour:</b>	Colourless

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<b>Odour:</b>	Not characteristic
<b>· Change in condition</b>	
<b>Melting point/Melting range:</b>	> 85°C
<b>Boiling point/Boiling range:</b>	Not determined
<b>· Flash point:</b>	Not applicable
<b>· Ignition temperature:</b>	440°C
<b>· Self-inflammability:</b>	Product is not selfigniting.
<b>· Danger of explosion:</b>	Product is not explosive.
<b>· Density</b>	Not determined
<b>· Settled apparent density at 20°C</b>	700 kg/m <sup>3</sup>
<b>· Solubility in / Miscibility with Water:</b>	Soluble
<b>· pH-value (100 g/l) at 20°C:</b>	1.3
<b>· Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>· Solids content:</b>	100.0 %

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Dangerous reactions** Reacts with acids, alkalis and oxidizing agents
- **Dangerous products of decomposition:** Sulphur oxides (SO<sub>x</sub>)

## 11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

### 62-56-6 thiourea

Oral	LD50	1750 mg/kg (rat)
Dermal	LD50	2800 mg/kg (rabbit)
Inhalative	LC50/4 h	0.17 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritant effect.
- **Sensitization:** No sensitizing effect known.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Harmful  
Irritant

This statement was deduced from the properties of the single components.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Limited evidence of a carcinogenic effect.

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Possible risk of harm to the unborn child.

### 12 Ecological information:

- **Information about elimination (persistence and degradability):** Not easily biodegradable
- **Behaviour in environmental systems:** Not determined
- **Mobility and bioaccumulation potential:** Not determined
- **Ecotoxicological effects:** Not determined
- **Remark:** Toxic for fish
- **General notes:**  
 Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.  
 Do not allow product to reach ground water, water bodies or sewage system.  
 Also poisonous for fish and plankton in water bodies.  
 Toxic for aquatic organisms  
 At present there are no ecotoxicological assessments.  
 The product does not contain organically bounded halogens (AOX-free).

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
 Must be specially treated under adherence to official regulations.

· **European waste catalogue**

16 05 07	discarded inorganic chemicals consisting of or containing dangerous substances
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- **Uncleaned packagings:**
- **Recommendation:**  
 Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.  
 Packagings that cannot be cleaned are to be disposed of in the same manner as the product.  
 EAK-No. 15 01 10
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID-GGVS/E Class:** 9 Miscellaneous dangerous substances and articles.
- **UN-Number:** UN 3077
- **Packaging group:** III
- **Label:** 9
- **Designation of goods:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (thiourea)

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· **Remarks:** "Limited quantity" according to chapter 3.4 ADR

· **Maritime transport IMDG:**



· **IMDG Class:** 9  
 · **UN Number:** UN 3077  
 · **Label** 9  
 · **Packaging group:** III  
 · **EMS Number:** F-A,S-F  
 · **Marine pollutant:** No  
 · **Correct technical name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (thiourea)  
 · **Remarks:** "Limited quantity" according to chapter 3.4 IMDG

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 9  
 · **UN/ID Number:** UN 3077  
 · **Label** 9  
 · **Packaging group:** III  
 · **Correct technical name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (thiourea)  
 · **Remarks:** Packing Instruction PAX/CAO 911

### 15 Regulatory information

· **Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· **Code letter and hazard designation of product:**



Xn Harmful  
 N Dangerous for the environment

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

thiourea

· **Risk phrases:**

22 Harmful if swallowed.  
 36 Irritating to eyes.  
 40 Limited evidence of a carcinogenic effect.  
 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 63 Possible risk of harm to the unborn child.

· **Safety phrases:**

22 Do not breathe dust.  
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

- **National regulations**
- **Technical instructions (air):**

Class	Share in %
I	64.0

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

### 16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant R-phrases**

- 22 Harmful if swallowed.
- 36 Irritating to eyes.
- 40 Limited evidence of a carcinogenic effect.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 63 Possible risk of harm to the unborn child.

- **Recommended restriction of use** No public product, only for commercial use

- **Sources**

- applicable EEC directives:
  - 1999/45/EC last change 2006/8/EC
  - 67/548/EC last change 2004/73/EC (29. ATP)
- Internal physical tests, MSDS of the ingredients

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

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