

### 1 Identification of the substance/mixture and of the company/undertaking

**Product identifier**

- Trade name: **Darkener Plus Ink**
- Article number: 11520 / 11521, 11522 / 11523, 11524 / 11525, 11526
- Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the preparation: Coating compound/ Surface coating/ paint

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

- Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH  
Lechstrasse 28  
D 90451 Nürnberg  
Tel. +49(0)911-642960  
Fax. +49(0)911-644456  
e-mail info@akemi.de
- Information department: Laboratory
- Emergency telephone number: Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH  
Tel. +49(0)911-64296-59  
Reachable during the following office hours:  
Monday – Thursday from 07:30 a.m. to 16:30 p.m.  
Friday from 07:30 a.m. to 13:30 p.m.

### 2 Composition/information on ingredients

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

**Dangerous components:**

|  |                      |                      |         |
|--|----------------------|----------------------|---------|
| CAS: 107-98-2<br>EINECS: 203-539-1<br>Index number: 603-064-00-3 | 1-methoxy-2-propanol | R10-67<br>H226; H336 | 50-100% |
| CAS: 94765-62-5  | C.I SOLVENT BLACK 45 | R53<br>H413          | <12.5%  |

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

### 3 Hazards identification

**Classification of the substance or mixture**



GHS02 Flame

H226 Flammable liquid and vapour.



GHS07

H336 May cause drowsiness or dizziness.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Flammable.

**Information concerning particular hazards for human 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.

**Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

**Label elements**

**Hazard-determining components of labelling:**

Void


**Labelling according to EU guidelines:**


The product has been classified and marked in accordance with directives on hazardous materials.

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- Risk phrases: Flammable.
- Safety phrases: Keep out of the reach of children.  
Avoid contact with skin.  
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point  
If swallowed, seek medical advice immediately and show this container or label.
- **Classification system:**
- NFPA ratings (scale 0 - 4)

|   |                |
|---|----------------|
|  | Health = 0     |
|   | Fire = 3       |
|   | Reactivity = 0 |
- HMIS-ratings (scale 0 - 4)

|   |                |
|---|----------------|
|  | Health = 0     |
|   | Fire = 3       |
|   | Reactivity = 0 |
- **Other hazards**
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

**4 First aid measures**

- **Description of first aid measures**
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.

**5 Firefighting measures**

- **Extinguishing media**
- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Advice for firefighters**
- Protective equipment: No special measures required.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**
- **Environmental precautions:** Wear protective equipment. Keep unprotected persons away.  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.
- **Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.

**7 Handling and storage**

- **Handling:**
- Precautions for safe handling Keep away from heat and direct sunlight.  
Store in cool, dry place in tightly closed receptacles.

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- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

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

- Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.

**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:

**107-98-2 1-methoxy-2-propanol**

|     |   |
|-----|---|
| REL | Short-term value: 540 mg/m <sup>3</sup> , 150 ppm<br>Long-term value: 360 mg/m <sup>3</sup> , 100 ppm |
| TLV | Short-term value: 553 mg/m <sup>3</sup> , 150 ppm<br>Long-term value: 369 mg/m <sup>3</sup> , 100 ppm |

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

- **Exposure controls**

- Personal protective equipment:
- General protective and hygienic measures:

Wash hands before breaks and at the end of work.  
The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.  
Not required.

- Breathing equipment:
- Protection of hands:

**Protective gloves**

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

Akemi skin protection agent recommendation for preventive skin shelter without use of protective gloves:

ARRETIL (<http://www.stoko.com>)

Akemi skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:

STOKO EMULSION (<http://www.stoko.com>)

Akemi skin protection recommendation for skin cleaning after product handling:

SOLOPOL (<http://www.stoko.com>)

SLIG SPEZIAL (<http://www.stoko.com>)

Akemi skin protection agent recommendation for skin aftercare:

STOKO VITAN (<http://www.stoko.com>)

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

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- Penetration time of glove material prior to the application.  
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:



Tightly sealed goggles

**9 Physical and chemical properties**

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

· General Information

· Appearance:

Form:

Fluid

Color:

According to product specification

· Odor:

Characteristic

· Change in condition

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

120°C (248°F)

· Flash point:

35°C (95°F)

· Ignition temperature:

270°C (518°F)

· Auto igniting:

Product is not selfigniting.

· Danger of explosion:

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower:

2.3 Vol %

· Vapor pressure at 20°C (68°F):

12 hPa (9 mm Hg)

· Density at 20°C (68°F):

1.01 g/cm<sup>3</sup> (8.428 lbs/gal)

· Solubility in / Miscibility with

Water:

Fully miscible.

· Viscosity:

Dynamic:

Not determined.

Kinematic:

Not determined.

· Solvent content:

Organic solvents:

75.8 %

Solids content:

24.2 %

**10 Stability and reactivity**

· **Reactivity**

· Chemical stability

· Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· **Possibility of hazardous reactions**

No dangerous reactions known.

· **Hazardous decomposition products:**

No dangerous decomposition products known.

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### 11 Toxicological information

· **Information on toxicological effects**

- Acute toxicity:
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.

### 12 Ecological information

· **Toxicity**

- Acquatic toxicity: No further relevant information available.
- **Additional ecological information:**
- General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water
- **Results of PBT and vPvB assessment**
- PBT: Not applicable.
- vPvB: Not applicable.

### 13 Disposal considerations

· **Waste treatment methods**

- Recommendation: 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.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

### 14 Transport information

· DOT regulations:



- Hazard class: 3
- Identification number: UN1263
- Packing group: III
- Proper shipping name (technical name): PAINT, solution
- Label: 3

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



- ADR/RID class: 3 (F1) Flammable liquids
- Danger code (Kemler): 30
- UN-Number: 1263
- Packaging group: III

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USA

**Trade name: Darkener Plus Ink**

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· UN proper shipping name: 1263 PAINT, solution, special provision 640E

**· Maritime transport IMDG:**



· IMDG Class: 3  
 · UN Number: 1263  
 · Label: 3  
 · Packaging group: III  
 · EMS Number: F-E,S-E  
 · Marine pollutant: No  
 · Proper shipping name: PAINT, solution

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



· ICAO/IATA Class: 3  
 · UN/ID Number: 1263  
 · Label: 3  
 · Packaging group: III  
 · Proper shipping name: PAINT, solution

· **UN "Model Regulation":** UN1263, PAINT, solution, 3, III  
 · **Special precautions for user** Warning: Flammable liquids

**15 Regulatory information**

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

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

107-98-2 | 1-methoxy-2-propanol

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

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· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Hazard-determining components of labelling:

Void

· Product related hazard informations:

The product has been classified and marked in accordance with directives on hazardous materials.

· Risk phrases:

Flammable.

· Safety phrases:

Keep out of the reach of children.

Avoid contact with skin.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point

If swallowed, seek medical advice immediately and show this container or label.

· National regulations:· Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

· VOC USA

909.0 g/l / 7.59 lb/gl

· **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 MSDS:**

Laboratory

· **Contact:**

Dieter Zimmermann

· **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)

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

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)