

# MATERIAL SAFETY DATA SHEET

No.: 3119-H5

Date: 14.08.1985

### Section I

<b>Manufacturer's Name:</b> Staedtler Mars GmbH & Co. KG		<b>Emergency Telephone No.:</b> 0911 / 394 319
<b>Address:</b> Kirchenweg 10, D-8500 Nürnberg 90		<b>Telex:</b> 0623115 mars d
<b>Trade Name and Synonyms:</b> Lumocolor S 311-Black		
<b>Principal use:</b> For Overhead-Projection		<b>Ink-Contents:</b> 1,7 g

### Section II - Hazardous Ingredients

Ingredient	LD50-unit	%
Acid Brown 4	780 mg/kg	5
i-Propanol	TWA-unit: 400 ppm	16
Ethylenglykol	TLV-unit: 50 ppm	4
Mixture of:	TLV-unit: 100 ppm	8
1-Methoxypropanol-2, Propylenglykol-1-methylether,		
1-Methoxy-2-hydroxy-propan, Methylpropylenglykol		
Hazardous Mixtures of other Liquids, Solids, or Gases		%
None		

### Section III - Physical Data of ink

<b>Boiling Point (°C):</b>	<b>Melting Point (°C):</b>	<b>Specific Gravity (H<sub>2</sub>O=1):</b> 1,04	<b>pH:</b> 6,5
<b>Evaporation Rate:</b> _____ = 1		<b>(%) Volatile by Volume:</b>	<b>Solubility in Water (By Wt.):</b> completely
<b>Pressurized</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      If Yes: _____ mmHg			

**Appearance and Odor**  
 fibre tip pen containing water-based ink, odorless

### Section IV - Fire and Explosion Hazards N / A

<b>Flash Point (°C):</b>	<b>(%) Lower Explosion Limit:</b>	<b>(%) Upper Explosion Limit:</b>	<b>Autoignition Temp. (°C):</b>
<b>Test Method</b> <input type="checkbox"/> Open Cup <input type="checkbox"/> Closed Cup <input type="checkbox"/> Cleveland Closed Cup <input type="checkbox"/> Other:			
<b>Extinguishing Media</b> <input type="checkbox"/> Water <input type="checkbox"/> Dry Chemical <input type="checkbox"/> Carbon Dioxide <input type="checkbox"/> Foam <input type="checkbox"/> Other:			
<b>Special Fire Fighting Procedures</b> <input type="checkbox"/> None <input type="checkbox"/> Other:			
<b>Unusual Fire and Explosion Hazards</b>			

Section V - Health Hazard Data

Threshold Limit Value: see Section II

Effects of Overexposure: N / A

Emergency and First Aid Procedures: N / A

Section VI - Reactivity Data

Stability
 Stable  Conditions to Avoid
 Unstable N / A

Incompatibility (Materials to Avoid - Reactions and/or Toxic Products)
 Strong Acids  Oxidizers  Other
 Strong Bases  Reducing Agents N / A

Hazardous Decomposition Products N / A Decomposition Temp. (°C):

Hazardous Polymerization
 May Occur Conditions to Avoid
 Will Not Occur N / A

Section VII - Spill Procedures and Waste Disposal/Treatment Methods

Steps to be taken in case Material is released or spilled:
 Contain for treatment/disposal  Ventilate Area  Other (Specify):
 Cover with absorbent material and collect  Neutralize (Specify): N / A

In case of Excessive Exposure
 Self contained breathing apparatus N / A
 Other (Specify):

Hazardous Waste
 Yes  No Waste ID Number

Waste Disposal Method
 None  Secured Chemical Landfill  Incineration
 Sanitary Landfill  Sanitary Sewer  Alternate Method (Specify):
 Solidification/Chemical fixation  Regulatory Requirements (Specify):

Waste Treatment Method
 None  Neutralization  Alternate Method (Specify):
 Recycling/Reuse  Bio Treatment
 Detoxification  Incineration (°C)

**Section VIII - Special Protection Information**

**Mechanical Ventilation**

- None  Comments:
- Increased Room N / A
- Local Exhaust

**Approved Respiratory Protection, if required:**

- None  Organic Vapor  Mist Cartridge
- Self Contained  Acid Gas  High Efficiency Dust
- Full Face  Alkaline Gas  Cartridge Number
- Other  Dust Cartridge  Comment

**Routine Personal Protection**

**Protective Gloves**

- None  Cotton  Acrylonitrile  One-time use only
- Polyethylene  PVC  Natural Rubber  Other
- Latex/Neoprene  Buna-N  Latex  Comments
- Viton  Vinyl  PVA

**Eye/Face Protection**

- Safety Glasses  Goggles  Other:
- Safety Glasses  Face Shield  Comments
- with Side Shields None

**Protective Clothing**

- None  Coverall  Comments
- Apron  Disposable Clothing

**Section IX - Special Precautions**

**Precautions to be taken in Handling and Storing:**

None

**Other Precautions:**

The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties. These products should be stored, handled and used in conformity with the application they are intended. The information provided above is for general guidance only without responsibility on our part and is subject to change without notice.