

MSDS(2)  
MATERIAL SAFETY DATA SHEETPRODUCERS  
SUPPLIERS  
WAREHOUSERS

X

Ball Pen Ink

0239 PG3 black

704093

704177

704100

704198

QUICK IDENTIFIER(2)

## SECTION I - GENERAL INFORMATION

MANUFACTURER NAME: Dokumental GmbH &amp; Co. KG Schreibfarben

Factory Ludwigshafen  
Woellnerstraße 26, D-67065 Ludwigshafen  
Telephone: +49-621-5402-322  
Telefax: +49-621-5402-422 (or -394)  
e-mail: h.polzin@dokumental.deFactory Mittenwald  
Innsbrucker Str. 35, D-82481 Mittenwald  
Telephone: +49-8823-9202-0  
Telefax: +49-8823-3820

Date: 02.06.03 Prepared by Dr. Polzin (Factory Ludwigshafen)

## SECTION II - HAZARDOUS INGREDIENTS(3) (Specify components)

| CAS-no.     | substance        | conc. range % | classification(6) (European Union) |
|-------------|------------------|---------------|------------------------------------|
| 100-51-6    | benzyl alcohol   | 10 - 25       | Xn 20/22                           |
| 000122-93-6 | 2-Phenoxyethanol | 25 - 50       | Xn 22-36                           |

Transport Info: UN-No.: n.a. Prop. Shipping Name: No Dangerous Goods

IMDG-CODE: Class: n.a. MFAG: n.a. EMS No.: n.a.

ICAO/IATA Class: n.a. Packaging Group: n.a.

## SECTION III PHYS./CHEM. CHARACTERISTICS (SPECIFY COMPONENT)

Appearance: liquid Odor: typical

|                                                                                  |                                    |          |
|----------------------------------------------------------------------------------|------------------------------------|----------|
| Boiling Point (°C): 100                                                          | Density (g/ml):                    | 1.12 +/- |
| Vapor Density (Air = 1): > 1                                                     | Melting Point (°C):                | < 0      |
| Solubility in Water: insoluble                                                   | Evaporation Rate (Butylacetate= 1) | > 1      |
| Pressurized: yes <input type="checkbox"/> no <input checked="" type="checkbox"/> | % Volatile(4)                      | 49       |

Other Characteristics: mixture of polyhydric alcohols, dye  
stuffs, resin, and additives

## SECTION IV - FIRE AND EXPLOSION HAZARDS

Flashp. °C (Method used): &gt; 100 Explosion Limits (Vol %): LEL 1.3 UEL 13.

Extinguishing Media: alcohol resistant foam, CO<sub>2</sub>, powders, water spray

Special Fire Fighting Precautions: cool containers exposed to fire with water

do not use waterjet

Autoignition temperature (°C): 200

List of Hazardous Decomp. Products: carbon monoxide and dioxide, smoke, and oxides  
of nitroge

Other Advice: none

#### SECTION V - STORAGE HAZARDS

Stability: Unstable: | | Stable: ☒ Conditions to Avoid: avoid heating above 60°C

Incompatibility (Material to avoid): concentrated oxidizing or reducing agents

Hazardous Decomposition Products: no hazardous decomposition products known

Hazardous Polymerisation May Occur

Will Not Occur

☒

Conditions To Avoid: none

#### SECTION VI - HEALTH HAZARDS

Signs and Symptoms of Overexposure(s): not known

Medical Cond. Generally Aggravated: n.d.

Chem. Listed as Carcinogenes: none of the used chemicals are known to be carcinogenes

#### Emergency and First Aid Procedures

| Routes of Entry | First Aid Procedures                                                                                                                                                                                | Seek Medical Advice                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Inhalation      | remove for fresh air, keep patient warm and at rest: if breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek for medical advice | <input type="checkbox"/>            |
| Eyes            | rinse with plenty of clean and fresh water in case of remaining irritation seek for medical advice                                                                                                  | <input checked="" type="checkbox"/> |
| Skin            | remove moistened clothing, wash with soap and water, do not use solvents or thinners !!                                                                                                             | <input type="checkbox"/>            |
| Ingestion       | if accidentally swallowed obtain immediate medical attention. Keep at rest. Do not induce vomiting                                                                                                  | <input checked="" type="checkbox"/> |

SECTION VII - SPECIAL PRECAUTIONS

Special Precautions to be Taken in Handling: keep containers tightly closed,  
protect drums from the influence of weather.

Other Precautions: product should not get untreated into waters

Steps to be Taken in Case Material is Released or Spilled: absorb with appropriate  
liquid binding material and dispose of according to local regulations

Waste Disposal Methods: burn in a licensed incinerator, treat in a biological  
clarification plant; product may not get untreated into waters

SECTION VIII - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection: not necessary, good room ventilation is sufficient

Ventilation: Local Exhaust: Mechanical: not necessary Other:

Skin and Eye Protection: rubber or plastic gloves, protective glasses

Work/Hygenic Practices: pay attention to the usual rules for handling chemicals

Note: The information given in this MSDS is based on our present state of knowledge  
and is no assurance of properties of our products. Existing laws and  
regulations have to be obeyed by the purchaser himself. The product shall not  
be used for purposes other than it is assigned for without the consent of the  
producer.

Important: (1) Do not leave any blank spaces. If required information is unavailable,  
unknown, or does not apply, so indicate as follows; n.a. = not applicable  
n.d. = not determined  
n.n. = not necessary

- (2) Product type and common name (used on label and list).
- (3) Cited in any national regulations on the classification, packaging  
and labelling of dangerous substances, preparations, paints,  
varnishes, printing inks, and similar similar product.
- (4) Part of the mixture which evaporates.
- (5) LD<sub>50</sub> shall be noted if known
- (6) Health hazard by ingestion and inhalation  
shall be noted if known.
- (7) Calculated from the components
- (8) T - toxic  
Xn - harmful if swallowed  
Xi - irritant  
C - corrosive  
F - flammable

MSDS(2)  
MATERIAL SAFETY DATA SHEET

PRODUCERS  
SUPPLIERS  
WAREHOUSERS

X

600 B violet blue

QUICK IDENTIFIER(2)

SECTION I - GENERAL INFORMATION

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e-mail : b.polzin@dokumental.de

Factory Mittenwald

Innsbrucker Str. 35, D-82481 Mittenwald

Telephone: +49-8823-9202-0

Telefax : +49-8823-3820

Date: 02.12.02

Prepared by Dr. Polzin (Factory Ludwigshafen)

SECTION II - HAZARDOUS INGREDIENTS(3)

(Specify components)

| CAS-no.     | substance                | conc. range % | classification(8)(European Union) |
|-------------|--------------------------|---------------|-----------------------------------|
| 100-51-6    | benzyl alcohol           | 2.5 - 10      | Xn 20/22                          |
| 107-41-5    | 2-methylpentane-2,4-diol | 2.5 - 10      | Xi 36/38                          |
| 6786-83-0   | CI Solvent Blue 4        | 2.5 - 10      | Xn 22                             |
| 000122-99-6 | 2-Phenoxyethanol         | 25 - 50       | Xn 22-36                          |
| 52080-58-7  | CI Solvent Violet 8      | 2.5 - 10      | Xn 22-36-40                       |

ASTM D-4236: The bulk ink conforms with ASTM D-4236, "HL No Labelling Required".

According to ASTM D-4236 the complete writing instrument needs separate approval.

Transport Info: UN-No.: n.a. Prop. Shipping Name: No Dangerous Goods

IMDG-CODE Class: n.a. MFAG: n.a. EMS No.: n.a.

ICAO/IATA Class: n.a. Packaging Group: n.a.

SECTION III PHYS./CHEM. CHARACTERISTICS (SPECIFY COMPONENT)

Appearance: liquid

Odor: typical

Boiling Point (°C): 100

Density (g/ml):

1.12 +/- 0.01

Vapor Density (Air = 1): > 1

Melting Point (°C):

< 0

Solubility in Water: insoluble

Evaporation Rate (Butylacetate= 1) > 1

Pressurized:

yes

no

X

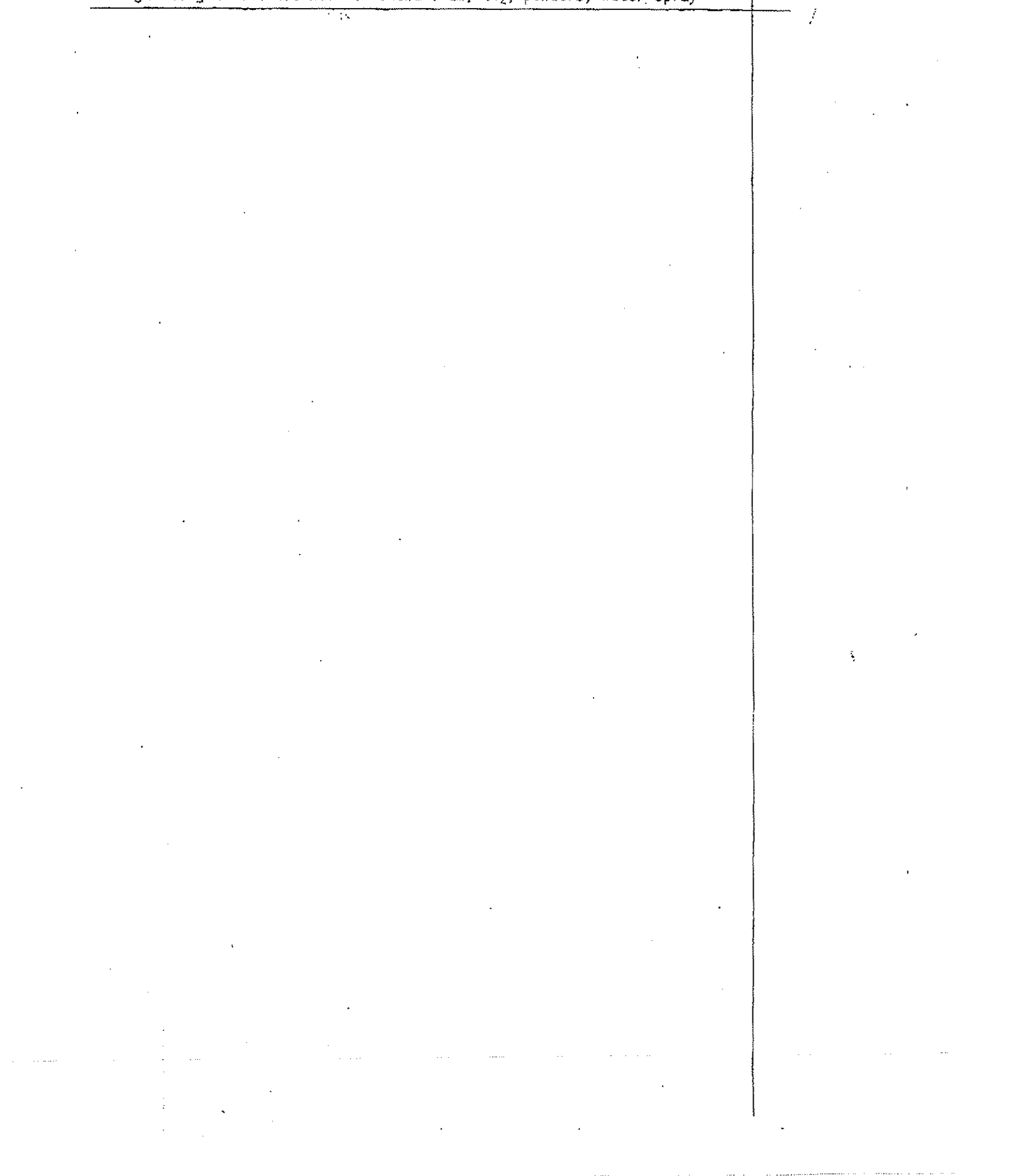
% Volatile(4)

47

Other Characteristics: mixture of polyhydric alcohols, dye

stuffs, resin, and additives

SECTION IV - FIRE AND EXPLOSION HAZARDS



Special Fire Fighting Precautions: cool containers exposed to fire with water

do not use waterjet

Autoignition temperature (°C): 200

List of Hazardous Decomp. Products: carbon monoxide and dioxide, smoke, and oxides  
of nitrogene

Other Advice: none

#### SECTION V - STORAGE HAZARDS

Stability: Unstable: | Stable: ☒ Conditions to Avoid: avoid heating above 60°C

Incompatibility (Material to avoid): concentrated oxidizing or reducing agents

Hazardous Decomposition Products: no hazardous decomposition products known

Hazardous Polymerisation May Occur | Will Not Occur ☒ |

Conditions To Avoid: none

#### SECTION VI - HEALTH HAZARDS

1. Acute(5): 1500 mg/kg (7) 2. Chronic(5) n.d.

Signs and Symptoms of Overexposure(6): not known

Medical Cond. Generally Aggravated: n.d.

Chem. Listed as Carcinogenes: none of the used chemicals are known to be carcinogenes

#### Emergency and First Aid Procedures

| Routes of Entry | First Aid Procedures                                                                                                                                                                                | Seek Medical Advice                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Inhalation      | remove for fresh air, keep patient warm and at rest; if breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek for medical advice | <input type="checkbox"/>            |
| Eyes            | rinse with plenty of clean and fresh water in case of remaining irritation seek for medical advice                                                                                                  | <input checked="" type="checkbox"/> |
| Skin            | remove moistened clothing, wash with soap and water, do not use solvents or thinners !!                                                                                                             | <input type="checkbox"/>            |
| Ingestion       | if accidentally swallowed obtain immediate medical attention. Keep at rest. Do not induce vomating                                                                                                  | <input checked="" type="checkbox"/> |

## SECTION VII - SPECIAL PRECAUTIONS

Special Precautions to be Taken in Handling: keep containers tightly closed, protect drums from the influence of weather.

Other Precautions: product should not get untreated into waters

Steps to be Taken in Case Material is Released or Spilled: absorb with appropriate liquid binding material and dispose of according to local regulations

Waste Disposal Methods: burn in a licensed incinerator, treat in a biological clarification plant; product may not get untreated into waters

## SECTION VIII - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection: not necessary, good room ventilation is sufficient

Ventilation: Local Exhaust: Mechanical: not necessary Other:

Skin and Eye Protection: rubber or plastic gloves, protective glasses

Work/Hygienic Practices: pay attention to the usual rules for handling chemicals

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n.d. = not determined  
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- (4) Part of the mixture which evaporates.
- (5) LD<sub>50</sub> shall be noted if known
- (6) Health hazard by ingestion and inhalation shall be noted if known.
- (7) Calculated from the components
- (8) T - toxic  
Xn - harmful if swallowed  
Xi - irritant  
C - corrosive  
F - flammable

MSDS(2)  
MATERIAL SAFETY DATA SHEET

PRODUCERS  
SUPPLIERS  
WAREHOUSERS

X

BP 246 red

QUICK IDENTIFIER(2)

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Telephone: +49-8823-9202-0  
Telefax : +49-8823-3820

Date: 07.02.02 Prepared by Dr. Polzin (Factory Ludwigshafen)

SECTION II - HAZARDOUS INGREDIENTS(3) (Specify components)

| CAS-no.     | substance           | conc. range % | classification(6)(European Union) |
|-------------|---------------------|---------------|-----------------------------------|
| 989-38-8    | Basic Red 1         | 2.5 - 10 Xn   | 22                                |
| 000495-54-5 | CI Solvent Orange 3 | < 2.5 Xn      | 22                                |
| 000122-99-6 | 2-Phenoxyethanol    | 25 - 50 Xn    | 22-36                             |
| 110-63-4    | Butan-1,4-diol      | 10 - 25 Xn    | 22                                |

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SECTION III PHYS./CHEM. CHARACTERISTICS (SPECIFY COMPONENT)

|                                                                                  |                                        |
|----------------------------------------------------------------------------------|----------------------------------------|
| Appearance: liquid                                                               | Odor: typical                          |
| Boiling Point (°C): 100                                                          | Density (g/ml): 1.118                  |
| Vapor Density (Air = 1): > 1                                                     | Melting Point (°C): < 0                |
| Solubility in Water: insoluble                                                   | Evaporation Rate (Butylacetate= 1) > 1 |
| Pressurized: yes <input type="checkbox"/> no <input checked="" type="checkbox"/> | % Volatile(4) 54                       |

Other Characteristics: mixture of polyhydric alcohols, dye  
stuffs, resin, and additives

SECTION IV - FIRE AND EXPLOSION HAZARDS

|                                                                                     |                         |         |         |
|-------------------------------------------------------------------------------------|-------------------------|---------|---------|
| Flashp.°C (Method used): > 100                                                      | Explosion Limits (Vol%) | LEL 1.8 | UEL 15. |
| Extinguishing Media: alcohol resistant foam, CO <sub>2</sub> , powders, water spray |                         |         |         |

Special Fire Fighting Precautions: cool containers exposed to fire with water

do not use waterjet

Autoignition temperature (°C): 200

List of Hazardous Decomp. Products: carbon monoxide and dioxide, smoke, and oxides  
of nitrogene

Other Advice: none

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Stability: Unstable: ☐ Stable: ☒ Conditions to Avoid: avoid heating above 60°C

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Conditions To Avoid: none

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Signs and Symptoms of Overexposure(s): not known

Medical Cond. Generally Aggravated: n.d.

Chem. Listed as Carcinogenes: none of the used chemicals are known to be carcinogenes

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| Inhalation      | remove for fresh air, keep patient warm<br>an at rest; if breathing is irregular or<br>stopped, administer artificial respiration<br>If unconscious place in recovery position<br>and seek for medical advice | <input type="checkbox"/>            |
| Eyes            | rinse with plenty of clean and fresh water<br>in case of remaining irritation seek for<br>medical advice                                                                                                      | <input checked="" type="checkbox"/> |
| Skin            | remove moistened clothing, wash with<br>soap and water, do not use solvents or<br>thinners !!                                                                                                                 | <input type="checkbox"/>            |
| Ingestion       | if accidentally swallowed obtain<br>immediate medical attention. Keep at rest<br>Do not induce vomating                                                                                                       | <input checked="" type="checkbox"/> |

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