

# Material Safety Data Sheet

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

### 1.1 Product identifiers

Product name	ID Test Kit
Product Contents	1 x 10mL Diluent 1 x 5mg Indicator A 1 x 5mg Indicator B 1 x 2mL Agent A 1 x 2mL Agent B

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant Identified Uses	Product for analytical use
Uses Advised Against	Not described

### 1.3 Details of the supplier of the safety data sheet

Company	X
Telephone	X

### 1.4 Emergency telephone number

Emergency Phone Number	X
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## Section 2: Hazard identification

### 2.0 Classification of the complete product

GHS Classification	Flammable liquids (Category 2), H225 Corrosive to metals (Category 1), H290 Acute toxicity, Oral (Category 4), H302 Skin corrosion (Category 1A), H314 Serious eye damage (Category 1), H318 Eye irritation (Category 2A), H319 Specific target organ toxicity – single exposure (Category 3), central nervous system, H336 Short-term (acute aquatic hazard) (Category 3), H402
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### 2.1 Classification of the substance or mixture

#### 10mL Diluent

GHS Classification	Flammable liquids (Category 2), H225 Corrosive to metals (Category 1), H290
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# Material Safety Data Sheet

Acute toxicity, Oral (Category 4), H302  
Skin corrosion (Category 1A), H314  
Serious eye damage (Category 1), H318  
Eye irritation (Category 2A), H319  
Specific target organ toxicity – single exposure (Category 3), central nervous system, H336  
Short-term (acute aquatic hazard) (Category 3), H402

## 5mg Indicator A

GHS Classification

Acute toxicity, Oral (Category 4), H302

## 5mg Indicator B

GHS Classification

Corrosive to metals (Category 1), H290  
Acute toxicity, Oral (Category 4), H302  
Skin corrosion (Category 1A), H314  
Serious eye damage (Category 1), H318  
Short-term (acute aquatic hazard) (Category 3), H402

## 2mL Agent A

GHS Classification

Corrosive to metals (Category 1), H290  
Skin corrosive (Category 1A), H314  
Serious eye damage (Category 1), H318

## 2mL Agent B

GHS Classification

Flammable liquids (Category 2), H225  
Eye irritation (Category 2A), H319  
Specific target organ toxicity – single exposure (Category 3), central nervous system, H336

## 2.2 Label elements

### 10mL Diluent

Pictogram



Signal word

Danger

Hazard statement(s)

H225

Highly flammable liquid and vapour.

# Material Safety Data Sheet

H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H402	Harmful to aquatic life
Precautionary statement(s)	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P370 + P378	In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish.

# Material Safety Data Sheet

P403 + P233

Store in a well-ventilated place. Keep container tightly closed

P403 + P235

Store in a well-ventilated place. Keep cool.

P405

Store locked up.

P501

Dispose of contents/ container to an approved waste disposal plant.

## 5mg Indicator A

Pictogram



Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed.

Precautionary statement(s)

P264

Wash skin thoroughly after handling

P270

Do not eat, drink or smoke when using this product

P301 + P312 + P330

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

P501

Dispose of contents/ container to an approved waste disposal plant.

## 5mg Indicator B

Pictogram



Signal word

Danger

Hazard statement(s)

H290

May be corrosive to metals

H302

Harmful if swallowed

H314

Causes severe skin burns and eye damage

H402

Harmful to aquatic life

Precautionary statement(s)

P234

Keep only in original packaging.

P260

Do not breathe dust or mist.

P264

Wash skin thoroughly after handling.

# Material Safety Data Sheet

P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

## 2mL Agent A

Pictogram



Signal word

Danger

Hazard statement(s)

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

Precautionary statement(s)

P234

Keep only in original packaging.

P264

Wash skin thoroughly after handling.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection.

# Material Safety Data Sheet

P301 + P330 + P331

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 + P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

P363

Wash contaminated clothing before reuse.

P390

Absorb spillage to prevent material damage.

P405

Store locked up.

P501

Dispose of contents/ container to an approved waste disposal plant.

## 2mL Agent B

Pictogram



Signal word

Danger

Hazard statement(s)

H225

Highly flammable liquid and vapour.

H319

Causes serious eye irritation.

H336

May cause drowsiness or dizziness.

Precautionary statement(s)

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233

Keep container tightly closed.

P240

Ground and bond container and receiving equipment.

P241

Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242

Use non-sparking tools.

P243

Take action to prevent static discharges.

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

# Material Safety Data Sheet

P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P370 + P378	In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

## 2.3 Other hazards

10mL Diluent 2mL Agent B	May form explosive peroxides
5mg Indicator A 5mg Indicator B 2mL Agent A	None

## Section 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 10mL Diluent

Chemical	<b>2-Propanol</b>
Component	2-Propanol
Classification	Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3; H225, H319, H336
Synonyms	sec-Propyl alcohol, Isopropyl alcohol, Isopropanol

# Material Safety Data Sheet

Concentration 100%  
CAS No. 67-63-0  
Formula  $C_3H_8O$   
Chemical **Potassium hydroxide**  
Component Caustic potash  
Classification Met. Corr. 1; Acute Tox. 4; Skin Corr. 1A; Eye Dam. 1; Aquatic Acute 3; H290, H302, H314, H318, H402

Concentration 0.005M in 2-Propanol  
CAS No. 1310-58-3  
Formula HKO

## 5mg Indicator A

Chemical **Fast Blue BB Salt hemi(zinc chloride) salt**  
Component 4-(Benzoylamino)-2,5-diethoxybenzenediazonium tetrachlorozincate  
Classification Acute Tox. 4; H302  
Synonyms 4-Benzoylamino-2,5-diethoxybenzenediazonium chloridehemi(zinc chloride) salt, 4-Amino-2,5-diethoxybenzanilide diazotatedzinc double salt

Concentration 100%  
CAS No. 5486-84-0  
Formula  $C_{17}H_{18}ClN_3O_3 \cdot 0.5ZnCl_2$

## 5mg Indicator B

Chemical **Potassium hydroxide**  
Component Caustic potash  
Classification Met. Corr. 1; Acute Tox. 4; Skin Corr. 1A; Eye Dam. 1; Aquatic Acute 3; H290, H302, H314, H318, H402

Concentration 100%  
CAS No. 1310-58-3  
Formula HKO

## 2mL Agent A

Chemical **Sulfuric acid**  
Component Sulfuric acid



# Material Safety Data Sheet

Classification	Met. Corr. 1; Skin Corr. 1A; Eye Dam. 1; H290, H314, H318
Concentration	1.7M in Water
CAS No.	7664-93-9
Formula	H <sub>2</sub> O <sub>4</sub> S
<b>2mL Agent B</b>	
Chemical	<b>2-Propanol</b>
Component	2-Propanol
Classification	Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3; H225, H319, H336
Synonyms	sec-Propyl alcohol, Isopropyl alcohol, Isopropanol
Concentration	100%
CAS No.	67-63-0
Formula	C <sub>3</sub> H <sub>8</sub> O

## Section 4: First aid measures

### 4.1 Description of first aid measures

#### 4.1.1 General advice

All reagents Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### 4.1.2 If inhaled

All reagents If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### 4.1.3 In case of skin contact

10mL Diluent  
5mg Indicator B  
2mL Agent A  
5mg Indicator A  
2mL Agent B  
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.  
Wash off with soap and plenty of water. Consult a physician.

#### 4.1.4 In case of eye contact

10mL Diluent  
5mg Indicator B  
2mL Agent A  
2mL Agent B  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

# Material Safety Data Sheet

5mg Indicator A

Flush eyes with water as a precaution

## 4.1.5 If swallowed

All reagents

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 4.2 Most important symptoms and effects, both acute and delayed

All reagents

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

## 4.3 Indication of any immediate medical attention and special treatment needed

All reagents

No data available

## Section 5: Firefighting measures

### 5.1 Extinguishing media

#### 5.1.1 Suitable extinguishing media

10mL Diluent

Dry powder, dry sand.

2mL Agent B

5mg Indicator A

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5mg Indicator B

2mL Agent A

#### 5.1.2 Unsuitable extinguishing media

10mL Diluent

Do NOT use water jet.

2mL Agent B

5mg Indicator A

No data available

5mg Indicator B

2mL Agent A

### 5.2 Special hazards arising from the substance or mixture

#### 10mL Diluent

Chemical

**2-Propanol**

Component

2-Propanol

CAS-No.

67-63-0

Carbon oxides

Chemical

**Potassium hydroxide**

Component

Caustic potash

CAS-No.

1310-58-3

Potassium oxides

# Material Safety Data Sheet

## 5mg Indicator A

Chemical

Component

CAS No.

## Fast Blue BB Salt hemi(zinc chloride) salt

4-(Benzoylamino)-2,5-diethoxybenzenediazonium tetrachlorozincate

5486-84-0

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas, Zinc/zinc oxides

## 5mg Indicator B

Chemical

Component

CAS-No.

## Potassium hydroxide

Caustic potash

1310-58-3

Potassium oxides

## 2mL Agent A

Chemical

Component

CAS-No.

## Sulfuric acid

Sulfuric acid

7664-93-9

Sulphur oxides

## 2mL Agent B

Chemical

Component

CAS-No.

## 2-Propanol

2-Propanol

67-63-0

Carbon oxides

## 5.3 Advice for firefighters

All reagents

Wear self-contained breathing apparatus for firefighting if necessary.

## 5.4 Additional Information

10mL Diluent

2mL Agent B

5mg Indicator A

5mg Indicator B

2mL Agent A

Use water spray to cool unopened containers.

No data available

# Material Safety Data Sheet

## Section 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

10mL Diluent  
2mL Agent B

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

5mg Indicator A  
5mg Indicator B

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust. For personal protection see section 8.

2mL Agent A

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

### 6.2 Environmental precautions

10mL Diluent  
2mL Agent B

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

5mg Indicator A  
2mL Agent A

Do not let product enter drains.

5mg Indicator B

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

10mL Diluent  
2mL Agent B

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

5mg Indicator A  
5mg Indicator B

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

2mL Agent A

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

All reagents

For disposal see section 13.

# Material Safety Data Sheet

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

10mL Diluent  
2mL Agent B

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

5mg Indicator A  
5mg Indicator B

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

2mL Agent A

Avoid inhalation of vapour or mist. For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

10mL Diluent  
2mL Agent B

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Handle and store under inert gas. Hygroscopic. Storage class (TRGS 510): 3: Flammable liquids

5mg Indicator A

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature -20 °C. Light sensitive. Keep in a dry place. Storage class (TRGS 510): 11: Combustible Solids

5mg Indicator B

Keep container tightly closed in a dry and well-ventilated place. Handle under nitrogen, protect from moisture. Store under nitrogen. strongly hygroscopic. Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

2mL Agent A

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

### 7.3 Specific end use(s)

All reagents

Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

# Material Safety Data Sheet

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 10mL Diluent

Chemical **2-Propanol**

Component 2-Propanol

CAS-No. 67-63-0

Chemical **Potassium hydroxide**

Component Caustic potash

CAS-No. 1310-58-3

Derived No Effect Level (DNEL)

<u>Application Area</u>	<u>Exposure routes</u>	<u>Health effect</u>	<u>Value</u>
Workers	Inhalation	Long-term local effects	1 mg/m <sup>3</sup>
Consumers	Inhalation	Long-term local effects	1 mg/m <sup>3</sup>

#### 5mg Indicator A

Chemical **Fast Blue BB Salt hemi(zinc chloride) salt**

Component 4-(Benzoylamino)-2,5-diethoxybenzenediazonium tetrachlorozincate

CAS No. 5486-84-0

#### 5mg Indicator B

Chemical **Potassium hydroxide**

Component Caustic potash

CAS-No. 1310-58-3

Derived No Effect Level (DNEL)

<u>Application Area</u>	<u>Exposure routes</u>	<u>Health effect</u>	<u>Value</u>
Workers	Inhalation	Long-term local effects	1 mg/m <sup>3</sup>
Consumers	Inhalation	Long-term local effects	1 mg/m <sup>3</sup>

#### 2mL Agent A

Chemical **Sulfuric acid**

Component Sulfuric acid

CAS-No. 7664-93-9

Derived No Effect Level (DNEL)

<u>Application Area</u>	<u>Exposure routes</u>	<u>Health effect</u>	<u>Value</u>
Workers	Inhalation	Acute local effects	0.1 mg/m <sup>3</sup>

# Material Safety Data Sheet

Workers                      Inhalation                      Long-term local effects      0.05 mg/m<sup>3</sup>  
Predicted No Effect Concentration (PNEC)

<u>Compartment</u>	<u>Value</u>
Marine water	0.00025 mg/l
Fresh water	0.0025 mg/l
Marine sediment	0.002 mg/kg
Fresh water sediment	0.002 mg/kg
Onsite sewage treatment plant	8.8 mg/l

## 2mL Agent B

Chemical	<b>2-Propanol</b>
Component	2-Propanol
CAS-No.	67-63-0

## 8.2 Exposure controls

### 8.2.0 Appropriate engineering controls

All reagents                      Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 8.2.1 Personal protective equipment: Eye/face protection

10mL Diluent  
5mg Indicator B  
2mL Agent B                      Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

5mg Indicator A                      Safety glasses with side-shields conforming to EN166(EU). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

2mL Agent A                      Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### 8.2.2 Personal protective equipment: Skin protection

All reagents                      Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with

# Material Safety Data Sheet

applicable laws and good laboratory practices.  
Wash and dry hands.

## 8.2.3 Personal protective equipment: Body protection

10mL Diluent  
2mL Agent B

Impervious clothing, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

5mg Indicator A  
5mg Indicator B  
2mL Agent A

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## 8.2.4 Personal protective equipment: Respiratory protection

10mL Diluent  
2mL Agent A  
2mL Agent B

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

5mg Indicator A

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

5mg Indicator B

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 8.2.5 Personal protective equipment: Control of environmental exposure

10mL Diluent  
5mg Indicator B

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.



# Material Safety Data Sheet

5mg Indicator A  
2mL Agent A  
2mL Agent B

Do not let product enter drains.

Prevent further leakage or spillage if safe to do so.  
Do not let product enter drains.

## Section 9: Physical and chemical Properties

### 9.1 Information on basic physical and chemical properties

#### 10mL Diluent

Chemical	<b>2-Propanol</b>
Component	2-Propanol
CAS-No.	67-63-0
Appearance	Form: liquid Colour: colourless
Odour	Alcohol-like
Odour threshold	No data available
pH	Neutral at 20 °C (68 °F)
Melting point/freezing point	Melting point/range: -89.5 °C (-129.1 °F)
Initial boiling point and boiling point range	82 °C (180 °F)
Flash point	12.0 °C (53.6 °F) – closed cap
Evaporation rate	3.0
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 13.4 %(V) Lower explosion limit: 2 %(V)
Vapour pressure	43 hPa at 20 °C (68 °F)
Vapour density	2.07
Relative density	0.785 g/L at 25 °C (77 °F)
Water solubility	Soluble
Partition coefficient: n-octanol/water	Log Pow: 0.05 – Bioaccumulation is not expected
Auto-ignition temperature	425.0 °C (797.0 °F)
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Chemical	<b>Potassium hydroxide</b>

# Material Safety Data Sheet

Component	Caustic potash
CAS-No.	1310-58-3
Appearance	Form: solid Colour: colourless
Odour	Odourless
Odour threshold	No data available
pH	Ca. 13.5 at 5.6 g/L at 25 °C (77 °F)
Melting point/freezing point	Melting point: 380 °C (716 °F)
Initial boiling point and boiling point range	1,327 °C (2,421 °F) at 1,013 hPa
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Does not ignite
Upper/lower flammability or explosive limits	No data available
Vapour pressure	1 hPa at 719 °C (1326 °F)
Vapour density	No data available
Relative density	2.04 g/cm <sup>3</sup> at 20 °C (68 °F)
Water solubility	1,130 g/L at 20 °C (68 °F)
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

## **5mg Indicator A**

Chemical	<b>Fast Blue BB Salt hemi(zinc chloride) salt</b>
Component	4-(Benzoylamino)-2,5-diethoxybenzenediazonium tetrachlorozincate
CAS No.	5486-84-0
Appearance	Form: powder
Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point/freezing point	Melting point: 157 °C (315 °F)

# Material Safety Data Sheet

Initial boiling point and boiling point range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

## 5mg Indicator B

Chemical	<b>Potassium hydroxide</b>
Component	Caustic potash
CAS-No.	1310-58-3
Appearance	Form: solid Colour: colourless
Odour	Odourless
Odour threshold	No data available
pH	Ca. 13.5 at 5.6 g/L at 25 °C (77 °F)
Melting point/freezing point	Melting point: 380 °C (716 °F)
Initial boiling point and boiling point range	1,327 °C (2,421 °F) at 1,013 hPa
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Does not ignite
Upper/lower flammability or explosive limits	No data available
Vapour pressure	1 hPa at 719 °C (1326 °F)
Vapour density	No data available
Relative density	2.04 g/cm <sup>3</sup> at 20 °C (68 °F)

# Material Safety Data Sheet

Water solubility	1,130 g/L at 20 °C (68 °F)
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

## 2mL Agent A

Chemical	<b>Sulfuric acid</b>
Component	Sulfuric acid
CAS-No.	7664-93-9
Appearance	Form: clear, liquid
Odour	No data available
Odour threshold	No data available
pH	1.2 at 5 g/L
Melting point/freezing point	3 °C (37 °F)
Initial boiling point and boiling point range	290 °C (554 °F)
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	1.33 hPa at 145.8 °C (294.4 °F)
Vapour density	3.39 – (Air = 1.0)
Relative density	1.84 g/cm <sup>3</sup> at 25 °C (77 °F)
Water solubility	Soluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

## 2mL Agent B

Chemical	<b>2-Propanol</b>
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# Material Safety Data Sheet

Component	2-Propanol
CAS-No.	67-63-0
Appearance	Form: liquid Colour: colourless
Odour	Alcohol-like
Odour threshold	No data available
pH	Neutral at 20 °C (68 °F)
Melting point/freezing point	Melting point/range: -89.5 °C (-129.1 °F)
Initial boiling point and boiling point range	82 °C (180 °F)
Flash point	12.0 °C (53.6 °F) – closed cap
Evaporation rate	3.0
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 13.4 %(V) Lower explosion limit: 2 %(V)
Vapour pressure	43 hPa at 20 °C (68 °F)
Vapour density	2.07
Relative density	0.785 g/L at 25 °C (77 °F)
Water solubility	Soluble
Partition coefficient: n-octanol/water	Log Pow: 0.05 – Bioaccumulation is not expected
Auto-ignition temperature	425.0 °C (797.0 °F)
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
<b>9.2 Other information</b>	
<b>10mL Diluent</b>	No data available
<b>5mg Indicator A</b>	No data available
<b>5mg Indicator B</b>	No data available
Bulk density	1,300 kg/m <sup>3</sup>
<b>2mL Agent A</b>	
Surface tension	55.1 mN/m at 20 °C (68 °F)

# Material Safety Data Sheet

Relative vapour density	3.39 – (Air = 1.0)
<b>2mL Agent B</b>	
Minimum ignition energy	0.65 mJ
Conductivity	< 0.1 $\mu\text{S}/\text{cm}$
Surface tension	20.8 mN/m at 25.0 °C (77.0 °F)
Relative vapour density	2.07

## Section 10: Stability and reactivity

### 10.1 Reactivity

All reagents No data available

### 10.2 Chemical stability

10mL Diluent  
2mL Agent B

Reacts with air to form peroxides.  
Test for peroxide formation before distillation or evaporation. Test for peroxide formation or discard after 1 year. Stable under recommended storage conditions. Stable under recommended storage conditions.

5mg Indicator A  
5mg Indicator B  
2mL Agent A

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

10mL Diluent  
2mL Agent B

Vapours may form explosive mixture with air.

5mg Indicator A  
5mg Indicator B  
2mL Agent A

No data available

### 10.4 Conditions to avoid

10mL Diluent  
2mL Agent B

Heat, flames and sparks.

5mg Indicator A  
5mg Indicator B  
2mL Agent A

No data available

### 10.5 Incompatible materials

10mL Diluent No data available

5mg Indicator A Strong oxidizing agents, strong bases

5mg Indicator B Nitro compounds, organic materials, magnesium, copper, water. Reacts violently with: Metals, light metals. Contact with aluminum, tin and zinc

# Material Safety Data Sheet

2mL Agent A	liberates hydrogen gas. Contact with n formation of shock-sensitive salts. Vigorous reaction with: Alkali metals, halogens, azides, anhydrides, strong oxidizing agents
2mL Agent B	Bases, halides, organic materials, carbides, fulminates, nitrates, picrates, cyanides, chlorates, alkali halides, zinc salts, permanganates (for example potassium permanganate), hydrogen peroxide, azides, perchlorates, nitromethane, phosphorous. Reacts violently with: cyclopentadiene, cyclopentanone oxime, nitroaryl amines, hexalithium disilicide, phosphorous(III) oxide, powdered metals, strong oxidizing agents
	Strong oxidizing agents, acid anhydrides, aluminium, halogenated compounds, acids

## 10.6 Hazardous decomposition products

### 10mL Diluent

Chemical	<b>2-Propanol</b>
Component	2-Propanol
CAS-No.	67-63-0
Hazardous decomposition products formed under fire conditions	Carbon oxides
Other decomposition products	No data available
Chemical	<b>Potassium hydroxide</b>
Component	Caustic potash
CAS-No.	1310-58-3
Hazardous decomposition products formed under fire conditions	Potassium oxides
Other decomposition products	No data available

### 5mg Indicator A

Chemical	<b>Fast Blue BB Salt hemi(zinc chloride) salt</b>
Component	4-(Benzoylamino)-2,5-diethoxybenzenediazonium tetrachlorozincate
CAS No.	5486-84-0
Hazardous decomposition products formed under fire conditions	Carbon oxides, nitrogen oxides (NOx), hydrogen chloride gas, zinc/zinc oxides
Other decomposition products	No data available

### 5mg Indicator B

# Material Safety Data Sheet

Chemical	<b>Potassium hydroxide</b>
Component	Caustic potash
CAS-No.	1310-58-3
Hazardous decomposition products formed under fire conditions	Potassium oxides
Other decomposition products	No data available

## 2mL Agent A

Chemical	<b>Sulfuric acid</b>
Component	Sulfuric acid
CAS-No.	7664-93-9
Hazardous decomposition products formed under fire conditions	Sulphur oxides
Other decomposition products	No data available

## 2mL Agent B

Chemical	<b>2-Propanol</b>
Component	2-Propanol
CAS-No.	67-63-0
Hazardous decomposition products formed under fire conditions	Carbon oxides
Other decomposition products	No data available

## Section 11: Toxicological information

### 11.1 Information on toxicological effects

#### 10mL Diluent

Chemical	<b>2-Propanol</b>
Component	2-Propanol
CAS-No.	67-63-0
Acute toxicity	LD50 Oral - Rat - 5,840 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rat - male and female - 4 h - 37.5 mg/l (OECD Test Guideline 403) LD50 Dermal - Rabbit - 12,800 mg/kg Remarks: (RTECS)
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)



# Material Safety Data Sheet

Serious eye damage/eye irritation	Eyes - Rabbit Result: Eye irritation (OECD Test Guideline 405) (Regulation (EC) No 1272/2008, Annex VI)
Respiratory or skin sensitisation	Buehler Test - Guinea pig Result: negative (OECD Test Guideline 406)
Germ cell mutagenicity	Ames test Salmonella typhimurium Result: negative In vitro mammalian cell gene mutation test Chinese hamster ovary cells Result: negative OECD Test Guideline 474 Mouse - male and female - Bone marrow Result: negative
Carcinogenicity	This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
Reproductive toxicity	No data available
Specific target organ toxicity – single exposure	Inhalation, Oral - May cause drowsiness or dizziness. - Central nervous system Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) Acute inhalation toxicity - Central nervous system
Specific target organ toxicity – repeated exposure	No data available
Aspiration hazard	No data available
Additional information	RTECS: NT8050000 Central nervous system depression. Prolonged or repeated exposure can cause: nausea, headache, vomiting, narcosis, drowsiness. Overexposure may cause mild, reversible liver effects. Aspiration may lead to: lung oedema, pneumonia.

# Material Safety Data Sheet

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption: headache, dizziness, inebriation, unconsciousness, narcosis.  
After uptake of large quantities: Coma  
Handle in accordance with good industrial hygiene and safety practice.  
Kidney - Irregularities - Based on Human Evidence

Chemical

**Potassium hydroxide**

Component

Caustic potash

CAS-No.

1310-58-3

Acute toxicity

LD50 Oral - Rat - male - 333 mg/kg  
(OECD Test Guideline 425)  
Inhalation: Corrosive to respiratory system.  
Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit  
Result: Causes burns.  
Remarks: (IUCLID)

Serious eye damage/eye irritation

Eyes - Rabbit  
Result: Causes serious eye damage.  
(OECD Test Guideline 405)  
Causes serious eye damage.

Respiratory or skin sensitisation

Sensitisation test: - Guinea pig  
Result: negative  
Remarks: (IUCLID)

Germ cell mutagenicity

Ames test  
S. typhimurium  
Result: negative  
(ECHA)  
In vitro mammalian cell gene mutation test  
mouse lymphoma cells  
Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity

No data available

# Material Safety Data Sheet

Specific target organ toxicity – single exposure	Acute oral toxicity - If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. Acute inhalation toxicity - burns of mucous membranes, cough, shortness of breath Possible damages: damage of respiratory tract
Specific target organ toxicity – repeated exposure	No data available
Aspiration hazard	No data available
Additional information	RTECS: Not available To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 5mg Indicator A

Chemical	<b>Fast Blue BB Salt hemi(zinc chloride) salt</b>
Component	4-(Benzoylamino)-2,5-diethoxybenzenediazonium tetrachlorozincate
CAS No.	5486-84-0
Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
Reproductive toxicity	No data available
Specific target organ toxicity – single exposure	No data available
Specific target organ toxicity – repeated exposure	No data available
Aspiration hazard	No data available
Additional information	RTECS: Not available To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 5mg Indicator B

# Material Safety Data Sheet

Chemical	<b>Potassium hydroxide</b>
Component	Caustic potash
CAS-No.	1310-58-3
Acute toxicity	LD50 Oral - Rat - male - 333 mg/kg (OECD Test Guideline 425) Inhalation: Corrosive to respiratory system. Dermal: No data available
Skin corrosion/irritation	Skin - Rabbit Result: Causes burns. Remarks: (IUCLID)
Serious eye damage/eye irritation	Eyes - Rabbit Result: Causes serious eye damage. (OECD Test Guideline 405) Causes serious eye damage.
Respiratory or skin sensitisation	Sensitisation test: - Guinea pig Result: negative Remarks: (IUCLID)
Germ cell mutagenicity	Ames test S. typhimurium Result: negative (ECHA) In vitro mammalian cell gene mutation test mouse lymphoma cells Result: negative
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
Reproductive toxicity	No data available
Specific target organ toxicity – single exposure	Acute oral toxicity - If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. Acute inhalation toxicity - burns of mucous membranes, cough, shortness of breath Possible damages: damage of respiratory tract
Specific target organ toxicity – repeated exposure	No data available
Aspiration hazard	No data available
Additional information	RTECS: Not available

# Material Safety Data Sheet

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 2mL Agent A

Chemical

### Sulfuric acid

Component

Sulfuric acid

CAS-No.

7664-93-9

Acute toxicity

LD50 Oral - Rat - male and female - 2,140 mg/kg  
Remarks: (ECHA)  
LC50 Inhalation - Mouse - male and female - 4 h - 0.85 mg/l  
(OECD Test Guideline 403)  
Inhalation: Corrosive to respiratory system.  
Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit  
Result: Extremely corrosive and destructive to tissue.  
Remarks: (IUCLID)

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

Ames test  
Salmonella typhimurium  
Result: negative  
(HSDB)

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure

No data available

Specific target organ toxicity – repeated exposure

No data available

Aspiration hazard

No data available

Additional information

RTECS: WS5600000  
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin; spasm, inflammation and edema of the larynx; spasm, inflammation and edema of

# Material Safety Data Sheet

the bronchi; pneumonitis; pulmonary edema; burning sensation; cough; wheezing; laryngitis; shortness of breath; headache; nausea; vomiting; pulmonary edema. Effects may be delayed.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After inhalation of aerosols: damage to the affected mucous membranes.

After skin contact: severe burns with formation of scabs.

After eye contact: burns, corneal lesions.

After swallowing: severe pain (risk of perforation!), nausea, vomiting and diarrhoea.

After a latency period of several weeks possibly pyloric stenosis.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Stomach - Irregularities - Based on Human Evidence

## 2mL Agent B

Chemical

Component

CAS-No.

Acute toxicity

Skin corrosion/irritation

Serious eye damage/eye irritation

Respiratory or skin sensitisation

## 2-Propanol

2-Propanol

67-63-0

LD50 Oral - Rat - 5,840 mg/kg  
(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h -  
37.5 mg/l

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - 12,800 mg/kg

Remarks: (RTECS)

Skin - Rabbit

Result: No skin irritation - 4 h  
(OECD Test Guideline 404)

Eyes - Rabbit

Result: Eye irritation

(OECD Test Guideline 405)

(Regulation (EC) No 1272/2008, Annex VI)

Buehler Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

# Material Safety Data Sheet

## Germ cell mutagenicity

Ames test  
Salmonella typhimurium  
Result: negative  
In vitro mammalian cell gene mutation test  
Chinese hamster ovary cells  
Result: negative  
OECD Test Guideline 474  
Mouse - male and female - Bone marrow  
Result: negative

## Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.  
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

## Reproductive toxicity

No data available

## Specific target organ toxicity – single exposure

Inhalation, Oral - May cause drowsiness or dizziness. - Central nervous system  
Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)  
Acute inhalation toxicity - Central nervous system

## Specific target organ toxicity – repeated exposure

No data available

## Aspiration hazard

No data available

## Additional information

RTECS: NT8050000  
Central nervous system depression. Prolonged or repeated exposure can cause: nausea, headache, vomiting, narcosis, drowsiness. Overexposure may cause mild, reversible liver effects. Aspiration may lead to: lung oedema, pneumonia.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption: headache, dizziness, inebriation, unconsciousness, narcosis.  
After uptake of large quantities: Coma

# Material Safety Data Sheet

Handle in accordance with good industrial hygiene and safety practice.  
Kidney - Irregularities - Based on Human Evidence

## Section 12: Ecological information

### 12.1 Toxicity

#### 10mL Diluent

Chemical

#### **2-Propanol**

Component

2-Propanol

CAS-No.

67-63-0

Toxicity to fish

Flow-through test LC50 - Pimephales promelas (fathead minnow) - 9,640 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 13,299 mg/l - 48 h Remarks: (IUCLID)

Toxicity to algae

IC50 - Desmodesmus subspicatus (green algae) - > 1,000 mg/l - 72 h Remarks: (IUCLID)

Toxicity to bacteria EC5 - Pseudomonas putida - 1,050 mg/l - 16 h Remarks: (Lit.)

Chemical

#### **Potassium hydroxide**

Component

Caustic potash

CAS-No.

1310-58-3

Toxicity to fish

LC50 - Gambusia affinis (Mosquito fish) - 80 mg/l - 96 h Remarks: (IUCLID)

#### 5mg Indicator A

Chemical

#### **Fast Blue BB Salt hemi(zinc chloride) salt**

Component

4-(Benzoylamino)-2,5-diethoxybenzenediazonium tetrachlorozincate

CAS No.

5486-84-0

No data available

#### 5mg Indicator B

Chemical

#### **Potassium hydroxide**

Component

Caustic potash



# Material Safety Data Sheet

CAS-No. 1310-58-3  
Toxicity to fish  
LC50 - *Gambusia affinis* (Mosquito fish) - 80 mg/l - 96 h  
Remarks: (IUCLID)

## 2mL Agent A

Chemical **Sulfuric acid**  
Component Sulfuric acid  
CAS-No. 7664-93-9  
Toxicity to fish  
Static test LC50 - *Lepomis macrochirus* (Bluegill sunfish) - > 16 - < 28 mg/l - 96 h  
Remarks: (ECHA)  
Toxicity to daphnia and other aquatic invertebrates  
Static test EC50 - *Daphnia magna* (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)  
Toxicity to algae  
Static test ErC50 - *Desmodesmus subspicatus* (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201)

## 2mL Agent B

Chemical **2-Propanol**  
Component 2-Propanol  
CAS-No. 67-63-0  
Toxicity to fish  
Flow-through test LC50 - *Pimephales promelas* (fathead minnow) - 9,640 mg/l - 96 h (OECD Test Guideline 203)  
Toxicity to daphnia and other aquatic invertebrates  
EC50 - *Daphnia magna* (Water flea) - 13,299 mg/l - 48 h  
Remarks: (IUCLID)  
Toxicity to algae  
IC50 - *Desmodesmus subspicatus* (green algae) - > 1,000 mg/l - 72 h  
Remarks: (IUCLID)  
Toxicity to bacteria EC5 - *Pseudomonas putida* - 1,050 mg/l - 16 h  
Remarks: (Lit.)

## 12.2 Persistence and degradability

### 10mL Diluent

# Material Safety Data Sheet

Chemical

## **2-Propanol**

Component

2-Propanol

CAS-No.

67-63-0

Biodegradability

Aerobic - Exposure time 5 d

Result: 53 % - Readily biodegradable.

(Directive 67/548/EEC, Annex V, C.6)

Theoretical oxygen demand

2,400 mg/g Remarks: (Lit.)

Ratio BOD/ThBOD

49 % Remarks: (IUCLID)

Chemical

## **Potassium hydroxide**

Component

Caustic potash

CAS-No.

1310-58-3

The methods for determining the biological degradability are not applicable to inorganic substances.

### **5mg Indicator A**

Chemical

## **Fast Blue BB Salt hemi(zinc chloride) salt**

Component

4-(Benzoylamino)-2,5-diethoxybenzenediazonium tetrachlorozincate

CAS No.

5486-84-0

No data available

### **5mg Indicator B**

Chemical

## **Potassium hydroxide**

Component

Caustic potash

CAS-No.

1310-58-3

The methods for determining the biological degradability are not applicable to inorganic substances.

### **2mL Agent A**

Chemical

## **Sulfuric acid**

Component

Sulfuric acid

CAS-No.

7664-93-9

# Material Safety Data Sheet

2mL Agent B

Chemical

Component

CAS-No.

The methods for determining the biological degradability are not applicable to inorganic substances.

## **2-Propanol**

2-Propanol

67-63-0

Biodegradability

Aerobic - Exposure time 5 d

Result: 53 % - Readily biodegradable.

(Directive 67/548/EEC, Annex V, C.6)

Theoretical oxygen demand

2,400 mg/g Remarks: (Lit.)

Ratio BOD/ThBOD

49 % Remarks: (IUCLID)

## **12.3 Bioaccumulative potential**

10mL Diluent

5mg Indicator A

5mg Indicator B

2mL Agent A

2mL Agent B

No data available

No bioaccumulation is to be expected (log Pow <= 4).

## **12.4 Mobility in soil**

All reagents

No data available

## **12.5 Results of PBT and vPvB assessment**

All reagents

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## **12.6 Other adverse effects**

### **10mL Diluent**

Chemical

Component

CAS-No.

## **2-Propanol**

2-Propanol

67-63-0

No data available

Chemical

## **Potassium hydroxide**

Component

Caustic potash

CAS-No.

1310-58-3

# Material Safety Data Sheet

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

## 5mg Indicator A

Chemical

Component

CAS No.

## Fast Blue BB Salt hemi(zinc chloride) salt

4-(Benzoylamino)-2,5-diethoxybenzenediazonium tetrachlorozincate

5486-84-0

No data available

## 5mg Indicator B

Chemical

Component

CAS-No.

## Potassium hydroxide

Caustic potash

1310-58-3

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

## 2mL Agent A

Chemical

Component

CAS-No.

## Sulfuric acid

Sulfuric acid

7664-93-9

Biological effects:  
Harmful effect due to pH shift.  
Caustic even in diluted form.  
Does not cause biological oxygen deficit.  
Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.  
Neutralisation possible in waste water treatment plants.  
Discharge into the environment must be avoided.

## 2mL Agent B

Chemical

Component

CAS-No.

## 2-Propanol

2-Propanol

67-63-0

No data available

# Material Safety Data Sheet

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

#### 10mL Diluent

Product

Contact a licensed professional waste disposal service to dispose of this material. Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Contaminated Packaging

Dispose of as unused product.

#### 5mg Indicator A

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated Packaging

Dispose of as unused product.

#### 5mg Indicator B

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated Packaging

Dispose of as unused product.

#### 2mL Agent A

Product

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated Packaging

Dispose of as unused product.

#### 2mL Agent B

Product

Contact a licensed professional waste disposal service to dispose of this material. Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but

# Material Safety Data Sheet

Contaminated Packaging

exert extra care in igniting as this material is highly flammable.

Dispose of as unused product.

## Section 14: Transport information

### 10mL Diluent

Chemical

### 2-Propanol

Component

2-Propanol

CAS-No.

67-63-0

DOT (US)

UN number: 1219

Class: 3

Packing group: II

Proper shipping name: Isopropanol

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

IMDG

UN number: 1219

Class: 3

Packing group: II

EMS-No: F-E, S-D

Proper shipping name: ISOPROPANOL

IATA

UN number: 1219

Class: 3

Packing group: II

Proper shipping name: Isopropanol

Chemical

### Potassium hydroxide

Component

Caustic potash

CAS-No.

1310-58-3

DOT (US)

UN number: 1813

Class: 8

Packing group: II

Proper shipping name: Potassium hydroxide, solid

Reportable Quantity (RQ): 1000 lbs

Poison Inhalation Hazard: No

IMDG

UN number: 1813

Class: 8

Packing group: II

EMS-No: F-A, S-B

Proper shipping name: POTASSIUM HYDROXIDE, SOLID

IATA

UN number: 1813

Class: 8

# Material Safety Data Sheet

Packing group: II  
Proper shipping name: Potassium hydroxide, solid

## 5mg Indicator A

Chemical  
Component

CAS No.

DOT (US)

IMDG

IATA

## Fast Blue BB Salt hemi(zinc chloride) salt

4-(Benzoylamino)-2,5-diethoxybenzenediazonium  
tetrachlorozincate

5486-84-0

Not dangerous goods

Not dangerous goods

Not dangerous goods

## 5mg Indicator B

Chemical  
Component

CAS-No.

DOT (US)

## Potassium hydroxide

Caustic potash

1310-58-3

UN number: 1813

Class: 8

Packing group: II

Proper shipping name: Potassium hydroxide, solid

Reportable Quantity (RQ): 1000 lbs

Poison Inhalation Hazard: No

IMDG

UN number: 1813

Class: 8

Packing group: II

EMS-No: F-A, S-B

Proper shipping name: POTASSIUM HYDROXIDE,  
SOLID

IATA

UN number: 1813

Class: 8

Packing group: II

Proper shipping name: Potassium hydroxide, solid

## 2mL Agent A (Sulfuric acid)

Chemical  
Component

CAS-No.

DOT (US)

## Sulfuric acid

Sulfuric acid

7664-93-9

UN number: 1830

Class: 8

Packing group: II

Proper shipping name: Sulfuric acid

Reportable Quantity (RQ): 1000 lbs

# Material Safety Data Sheet

IMDG

Poison Inhalation Hazard: No

UN number: 1830

Class: 8

Packing group: II

EMS-No: F-A, S-B

Proper shipping name: SULPHURIC ACID

IATA

UN number: 1830

Class: 8

Packing group: II

Proper shipping name: Sulphuric acid

## 2mL Agent B

Chemical

## 2-Propanol

Component

2-Propanol

CAS-No.

67-63-0

DOT (US)

UN number: 1219

Class: 3

Packing group: II

Proper shipping name: Isopropanol

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

IMDG

UN number: 1219

Class: 3

Packing group: II

EMS-No: F-E, S-D

Proper shipping name: ISOPROPANOL

IATA

UN number: 1219

Class: 3

Packing group: II

Proper shipping name: Isopropanol

## Section 15: Regulatory Information

All reagents

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

## Section 16: Other information

All reagents

No data available