

## Kit SDS Cover Sheet

Document ID: OSR6178-75: Version 06  
Revision Date (year/month/day) 2020/07/28  
Last Revision Date (year/month/day) 2017/05/08

### Product Information

<b>Product Name</b>	Creatinine
<b>Part Number</b>	OSR6178, OSR6678

### Components

<b>Description</b>	Creatinine R1 Creatinine R2
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### Transport Information

Shipping Information	IATA	IMDG	US DOT	European ADR	Canadian TDG
<b>UN/ID Number</b>	1824	1824	1824	1824	1824
<b>Shipping Name</b>	Sodium hydroxide solution				
<b>Hazard Class</b>	8 Corrosives	8 Corrosive substances	8 Corrosive material	8 Corrosive substances	8 Corrosives
<b>Subsidiary Risk</b>	None	None	None	None	None
<b>Classification Code</b>	Not applicable	Not applicable	Not applicable	C5	Not applicable
<b>Packing Group</b>	III	III	III	III	III
<b>Special Provisions</b>	A3, A803	223	N34	None	None
<b>Additional information</b>					
<b>IATA ERG Code</b>	8L	Not applicable	Not applicable	Not applicable	Not applicable
<b>EmS</b>	Not applicable	F-A, S-B	Not applicable	Not applicable	Not applicable
<b>NAERG Code</b>	Not applicable	Not applicable	154	Not applicable	154
<b>Environmental Hazards</b>					
<b>Marine Pollutant</b>	Not applicable	No	Not applicable	Not applicable	Not applicable

### Special Precautions for user

Warning: Corrosive substances.



## SAFETY DATA SHEET

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### Section 1 Identification of the Substance/mixture and of the Company/undertaking

#### 1.1 Product Identifier

**Product Name** Creatinine R1  
**Part Number** Component of P/N OSR6178, OSR6678

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

**Product Use** For In Vitro Diagnostic Use. See product literature for details.

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

##### Manufacturer

Beckman Coulter, Inc.  
 250 S. Kraemer Blvd  
 Brea, CA 92821, U.S.A.  
 Tel: 800-854-3633

##### EC REP Address

Beckman Coulter Ireland Inc.  
 Lismeehan  
 O'Callaghan's Mills  
 Co. Clare  
 Ireland  
 Tel: 353 (0)65 6831100

##### e-mail address

SDSNT@beckman.com  
 Further information Contact:  
 Customer support Unit, Beckman Coulter Ireland Inc.  
 Technical Service Department Tel. +001-800-854-3633 (PST)  
 E-mail: Techsupportuk@beckman.com

#### 1.4 Emergency telephone number

**Telephone number (24H)** Chemtrec Emergency Tel No. U.S.A. 800-424-9300, International (001) 703-527-3887  
 Tel +353 (0)65 683 1170; 08:00 - 16:30 hrs Mon-Thur, 08:00 - 15:30 hrs Fri (GMT) Tel +001-800-223-0130 (PST)

##### Distributor and Emergency Phone No.

Refer to attached list, Document ID: [472050](#), for local distributor and emergency phone numbers.

### Section 2 Hazards Identification

#### 2.1 Classification of substance or mixture

**Product Description** In vitro diagnostic reagent.  
 Light yellow; Clear; Liquid; Odorless

##### Classification according to EC 1272/2008 (CLP/GHS)

Skin Corrosion Category 1  
 Eye Damage Category 1

## Section 2 Hazards Identification (Continued)

### Classification according to US-OSHA (HCS 29 CFR 1910.1200) and UN GHS

Skin Corrosion Category 1  
Eye Damage Category 1

#### 2.2 Label Elements

#### According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS Hazardous Ingredients

Sodium Hydroxide

#### Pictogram



#### Signal Word

DANGER

#### Hazard Statements

H314 Causes severe skin burns and eye damage.

#### Precautionary Statements

P280 Wear protective gloves, protective clothing and eye/face protection.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Rinse skin with water.  
P304+P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P363 Wash contaminated clothing before reuse.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/national regulations  
Product label will display most significant precautionary statements.

#### 2.3 Other hazards

Results of PBT and vPvB assessment  
PBT: Not applicable.  
vPvB: Not applicable.

See Section 11 Toxicological Information for more detailed health information.

## Section 3 Composition and Information on Ingredients

### 3.2 Mixtures

Hazardous Ingredients:		Hazard Classification of Pure Ingredients		
Chemical Name	% by wt.	EU 1272/2008 CLP/GHS	GHS	Note

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### Section 3 Composition and Information on Ingredients (Continued)

Sodium Hydroxide CAS # 1310-73-2 EINECS # 215-185-5 Index # 011-002-00-6	0.5 - 1	Eye Dam. 1, H318 Skin Corr. 1A, H314	Eye Dam. 1, H318 Skin Corr. 1A, H314
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See section 8 for available Occupational exposure limits  
See Section 15 for additional regulatory information  
See Section 16 for description of hazard class and hazard statements

### Section 4 First Aid Measures

#### 4.1 Description of first aid measures

<b>Inhalation</b>	If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration by trained personnel and obtain medical attention immediately.
<b>Eye Contact</b>	If product enters eyes, rinse eyes gently with water for 15 minutes or longer, making sure that the eyelid is held open. Obtain medical advice/attention.
<b>Skin Contact</b>	In case of skin contact, rinse with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Obtain medical advice/attention.
<b>Ingestion</b>	If product is ingested, rinse mouth with water. If irritation or discomfort occurs, obtain medical attention immediately.

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

Corrosive. May cause burns to eyes, skin and respiratory tract.  
See Section 11 Toxicological Information for more detailed health information.

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

No further relevant information available. Refer to Section 4.1.

### Section 5 Fire Fighting Measures

**5.1 Extinguishing Media** In case of fire use carbon dioxide (CO<sub>2</sub>), dry chemical, water spray or foam.  
For large fires use extinguishing media suitable for surrounding fire.

#### 5.2 Special hazards arising from the substance or mixture Special Fire and Explosion Hazards

No special hazards determined.

#### Hazardous Combustion Products

No combustion products posing significant hazards are expected from this product (an aqueous solution).

#### 5.3 Advice for fire fighters

##### Protective Equipment

Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

#### 5.4 Additional information

No further relevant information available.

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## Section 6 Accidental Release Measures

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

**Personal Precautions** Wear protective gloves, protective clothing and tightly sealed eye/face protection. Observe general safety guidelines for protection; avoid eye and skin contact.

**6.2 Environmental Precautions** Contain spill to prevent migration. Do not allow the undiluted product to enter sewers/surface or ground water.

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

**Spill and Leak Procedures** Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.

**6.4 Reference to other sections** Refer sections 8 and 13.

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## Section 7 Handling and Storage

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**7.1 Precautions for safe handling** Use good laboratory procedures; avoid eye and skin contact.

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

Store at 2 to 8°C, as directed on the product label.  
To maintain product quality, store according to the instructions in the product labeling.  
Store away from strong acids, strong bases, strong oxidizers and incompatible materials (section 10).

**7.3 Specific end uses** No further relevant information available.

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## Section 8 Exposure Controls and Personal Protection

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### 8.1 Control parameters

#### Exposure Limits

##### US OSHA

Sodium Hydroxide 2 mg/m<sup>3</sup> TWA  
CAS # 1310-73-2

##### ACGIH

Sodium Hydroxide 2 mg/m<sup>3</sup> Ceiling  
CAS # 1310-73-2

##### DFG MAK

None established

##### Ireland

Sodium Hydroxide 2 mg/m<sup>3</sup> STEL  
CAS # 1310-73-2

##### IOELVs

None established

##### NIOSH

Sodium Hydroxide 10 mg/m<sup>3</sup> IDLH  
CAS # 1310-73-2

## Section 8 Exposure Controls and Personal Protection (Continued)

<b>Japan</b>	None established
<b>Sweden (AFS 2015:7 and amendments)</b>	
Sodium Hydroxide CAS # 1310-73-2	1 mg/m <sup>3</sup> TLV; 2 mg/m <sup>3</sup> Binding STEL
<b>8.2 Exposure controls</b>	
<b>Engineering Controls</b>	No special engineering controls are required. Use with good general ventilation.
<b>Eye Protection</b>	Safety glasses or chemical goggles should be worn to prevent eye contact. Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.
<b>Skin Protection</b>	Wear impervious gloves such as Nitrile or equivalent and protective clothing. Refer to U.S. OSHA 29 CFR 1910.138, European Standard EN 374, EN 14605:2005+A1:2009 or appropriate government standards.
<b>Respiratory Protection</b>	Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.

## Section 9 Physical and Chemical Properties

<b>9.1 Information on basic physical and chemical properties</b>			
<b>Physical State</b>	Liquid	<b>Specific Gravity (Water=1.0)</b>	1.02
<b>Color</b>	Light yellow	<b>Solubility</b>	
<b>Transparency</b>	Clear	<b>Water</b>	Fully miscible
<b>Odor</b>	Odorless	<b>Organic</b>	Not determined
<b>pH</b>	> 13	<b>Partition coefficient: n-octanol/water</b>	Not determined
<b>Freezing Point</b>	Similar to water, approximately 0°C	<b>Auto-ignition Temp.</b>	Product is not selfigniting
<b>Boiling Point</b>	Similar to water, approximately 100°C	<b>Decomposition Temperature</b>	Not determined
<b>Flash Point</b>	Not applicable	<b>Percent Volatiles</b>	Not applicable
<b>Evaporation Rate</b>	Not determined	<b>Vapor Pressure</b>	Similar to water, approximately 23 hPa
<b>Flammability (Solid, Gas)</b>	Not applicable	<b>Viscosity</b>	Not determined
<b>Flammability Limits</b>	Not applicable	<b>Explosive Properties</b>	Not applicable
<b>Vapor Density</b>	Not determined	<b>Oxidizing Properties</b>	Not applicable

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## Section 9 Physical and Chemical Properties (Continued)

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**Odor Threshold** Not applicable

**9.2 Other Information** No further relevant information available.

## Section 10 Stability and Reactivity

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**10.1 Reactivity** No further relevant information available.

**10.2 Chemical Stability** The product is stable in accordance with recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No further relevant information available.

**10.4 Conditions to Avoid**

To maintain product performance keep away from strong acids, strong bases, strong oxidizers.

Avoid exposure to heat and direct sunlight.

**10.5 Incompatible materials**

No further relevant information available.

**10.6 Hazardous Decomposition Products**

No decomposition products posing significant hazards would be expected from this product (an aqueous solution).

## Section 11 Toxicological Information

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**11.1 Information on toxicological effects**

### Toxicity Data for Hazardous Ingredients

Sodium Hydroxide  
CAS # 1310-73-2

Dermal LD50 Rabbit 1350 mg/kg; Oral LD50 Rat 325 mg/kg

**Primary Routes of Exposure**

Eye contact, ingestion, inhalation, and skin contact.

**Acute Toxicity**

Not classified based on available data.

**Skin Corrosion/Irritation**

Contact may cause severe skin burns.

**Serious eye damage/eye irritation**

Contact may cause serious eye damage.

**Respiratory/skin sensitization**

Not classified based on available data.

**Carcinogenicity**

No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 1272/2008 EC regulation.

**Germ cell mutagenicity**

Not classified based on available data.

**Reproductive Toxicity**

Not classified based on available data.

**Specific target organ toxicity – single exposure**

Not classified based on available data.

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## Section 11 Toxicological Information (Continued)

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### Specific target organ toxicity – repeated exposure

Not classified based on available data.

### Aspiration hazard

Not classified based on available data.

### Other Information

No further relevant information available.

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## Section 12 Ecological Information

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### 12.1 Ecotoxicity

#### Fresh Water Species

Sodium Hydroxide  
CAS # 1310-73-2

96 h LC50 *Oncorhynchus mykiss*: 45.4 mg/L [static]

#### Microtox

No information available.

#### Water Flea

No information available.

#### Fresh Water Algae

No information available.

**12.2 Persistence and degradability** Not determined for the product.

**12.3 Bioaccumulation** Not determined for the product.

**12.4 Mobility in soil** Not determined for the product.

### 12.5 Results of PBT and vPvB assessment

Not determined for the product. PBT: Not applicable, vPvB: Not applicable.

**12.6 Other Adverse Effects** No further relevant information available.

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## Section 13 Disposal Considerations

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### 13.1 Waste treatment methods

#### Product Waste Disposal

Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information.

#### Package disposal

Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

### 13.2 Additional information

Suggested European waste catalogue 18 01 06\* - chemicals consisting of or containing dangerous substances. Dispose in accordance with national, state and local waste regulations.

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## Section 14 Transport Information

Shipping Information	IATA	IMDG	US DOT	European ADR	Canadian TDG
<b>14.1 UN/ID Number</b>	1824	1824	1824	1824	PIN - 1824
<b>14.2 Shipping Name</b>	Sodium hydroxide solution				
<b>14.3 Hazard Class</b>	8 Corrosives	8 Corrosive substances	8 Corrosive material	8 Corrosive substances	8 Corrosives
<b>Subsidiary Risk</b>	None	None	None	None	None
<b>Classification Code</b>	Not applicable	Not applicable	Not applicable	C5	Not applicable
<b>14.4 Packing Group</b>	III	III	III	III	III
<b>Special Provisions</b>	A3, A803	223	N34	None	None
<b>Additional information</b>					
<b>IATA ERG Code</b>	8L	Not applicable	Not applicable	Not applicable	Not applicable
<b>EmS</b>	Not applicable	F-A, S-B	Not applicable	Not applicable	Not applicable
<b>NAERG Code</b>	Not applicable	Not applicable	154	Not applicable	154
<b>14.5 Environmental Hazards</b>					
<b>Marine Pollutant</b>	Not applicable	No	Not applicable	Not applicable	Not applicable
<b>14.6 Special Precautions for user</b>	Warning: Corrosive substances.				
<b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	Not applicable				

## Section 15 Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### US Federal and State Regulations

##### **SARA 313 (Section 313, Title III reporting requirements)**

CAS # 13746-66-2

Potassium Ferricyanide

1.0% de minimis concentration

##### **CERCLA (The Comprehensive Environmental Response, Compensation, and Liability Act) 40 CFR 302.4**

CAS # 1310-73-2

Sodium Hydroxide

##### **California Proposition 65**

**Chemical which is known to the State of California to cause cancer**

No ingredients listed.

## Section 15 Regulatory Information (Continued)

### Chemical which is known to the State of California to cause development toxicity

No ingredients listed.

### Chemical which is known to the State of California to cause male reproductive toxicity

No ingredients listed.

### Chemical which is known to the State of California to cause female reproductive toxicity

No ingredients listed.

#### Massachusetts Right To Know (RTK) List

CAS # 1310-73-2 Sodium Hydroxide

#### New Jersey Dept. of Health Right To Know (RTK) List

CAS # 1310-73-2 Sodium Hydroxide

CAS # 13746-66-2 Potassium Ferricyanide

#### Pennsylvania Right To Know (RTK) List

CAS # 1310-73-2 Sodium Hydroxide

CAS # 13746-66-2 Potassium Ferricyanide

#### EU Regulations

This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.

#### **REACH 1907/2006 EC - Annex XIV - list of substances subject to authorization.**

No ingredients listed.

#### Canada

This product is exempt from WHMIS label and SDS requirements.

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

*Some hazardous ingredients listed in Section 15 are below the cutoff limits of 0.1% for carcinogen, mutagen and reproductive toxin and 1% for other health hazards required for reporting in Section 3.*

## Section 16 Other Information

<b>Beckman Coulter Safety Rating</b>	<b>Flammability: 0</b> <b>Health: 3</b> <b>Reactivity with Water: 0</b> <b>Physical Contact: 3</b>	Code 0=None 1=Slight 2=Caution 3=Severe
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#### Revision Changes

Removed the classification of EC Directives 1999/45/EC and 67/548/EEC from Sec. 2.1, Sec 3.2 and 15.1  
Updated E-mail address in Sec. 1.3.  
Updated Section 8, 11 - 13, 15, 16.  
Updated Section 14.

#### Document version and issue/revision date

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## Section 16 Other Information (Continued)

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### Description of hazard Class and hazard statements from Section 3

Eye Dam. 1 - Eye Damage Category 1  
Skin Corr. 1A - Skin Corrosion Category 1A  
H314 - Causes severe skin burns and eye damage.  
H318 - Causes serious eye damage.

### Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists  
ADR and RID - European Agreement Concerning The International Carriage Of Dangerous Goods By Road and Rail  
CERCLA - The Comprehensive Environmental Response, Compensation, and Liability Act  
CLP - Classification, Labeling and Packaging  
DFGMAK - Republic Germany's maximum exposure limit  
GHS - Globally Harmonized System  
HCS - Hazard Communication Standard  
IARC - International Agency for Research on Cancer  
IATA DGR - International Air Transport Association Dangerous Goods Regulation  
ICAO - International Civil Aviation Organization  
IMDG - International Maritime Dangerous Goods  
IOELVs - European Unions' Indicative Occupational Exposure Limit Values  
NIOSH - National Institute for Occupational Safety and Health  
NTP - National Toxicology Program  
OSHA - Occupational Safety and Health Administration  
PBT - Persistent bioaccumulative and toxic substances  
SARA - Superfund Amendments and Reauthorization Act  
TDG - Canadian Transportation Of Dangerous Goods Regulations.  
UN GHS - United Nations Globally Harmonized System  
US DOT - United States Department of Transportation  
WHMIS - Workplace Hazardous Material Information System  
vPvB - Very persistent and very bioaccumulative substances  
LC50 - Lethal Concentration, 50%  
LD50 - Lethal Dose, 50%

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For further information, please contact your local Beckman Coulter, Inc. representative.

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### Section 1 Identification of the Substance/mixture and of the Company/undertaking

#### 1.1 Product Identifier

**Product Name** Creatinine R2  
**Part Number** Component of P/N OSR6178, OSR6678

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

**Product Use** For In Vitro Diagnostic Use. See product literature for details.

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

##### Manufacturer

Beckman Coulter, Inc.  
 250 S. Kraemer Blvd  
 Brea, CA 92821, U.S.A.  
 Tel: 800-854-3633

##### EC REP Address

Beckman Coulter Ireland Inc.  
 Lismeehan  
 O'Callaghan's Mills  
 Co. Clare  
 Ireland  
 Tel: 353 (0)65 6831100

##### e-mail address

SDSNT@beckman.com  
 Further information Contact:  
 Customer support Unit, Beckman Coulter Ireland Inc.  
 Technical Service Department Tel. +001-800-854-3633 (PST)  
 E-mail: Techsupportuk@beckman.com

#### 1.4 Emergency telephone number

**Telephone number (24H)** Chemtrec Emergency Tel No. U.S.A. 800-424-9300, International (001) 703-527-3887  
 Tel +353 (0)65 683 1170; 08:00 - 16:30 hrs Mon-Thur, 08:00 - 15:30 hrs Fri (GMT) Tel +001-800-223-0130 (PST)

##### Distributor and Emergency Phone No.

Refer to attached list, Document ID: [472050](#), for local distributor and emergency phone numbers.

### Section 2 Hazards Identification

#### 2.1 Classification of substance or mixture

**Product Description** In vitro diagnostic reagent.  
 Yellow; Clear; Liquid; Odorless

##### Classification according to EC 1272/2008 (CLP/GHS)

Skin Corrosion Category 1  
 Eye Damage Category 1

## Section 2 Hazards Identification (Continued)

### Classification according to US-OSHA (HCS 29 CFR 1910.1200) and UN GHS

Skin Corrosion Category 1  
Eye Damage Category 1

#### 2.2 Label Elements

#### According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS Hazardous Ingredients

Picric Acid

#### Pictogram



#### Signal Word

DANGER

#### Hazard Statements

H314 Causes severe skin burns and eye damage.

#### Precautionary Statements

P280 Wear protective gloves, protective clothing and eye/face protection.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Rinse skin with water.  
P304+P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P363 Wash contaminated clothing before reuse.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/national regulations  
Product label will display most significant precautionary statements.

#### 2.3 Other hazards

Results of PBT and vPvB assessment  
PBT: Not applicable.  
vPvB: Not applicable.

See Section 11 Toxicological Information for more detailed health information.

## Section 3 Composition and Information on Ingredients

### 3.2 Mixtures

Hazardous Ingredients:		Hazard Classification of Pure Ingredients		
Chemical Name	% by wt.	EU 1272/2008 CLP/GHS	GHS	Note

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## Section 3 Composition and Information on Ingredients (Continued)

Picric Acid CAS # 88-89-1 EINECS # 201-865-9 Index # 609-009-00-X	0.1 - 0.5	Acute Tox. Dermal 3, H311 Acute Tox. Inhal. 3, H331 Acute Tox. Oral 3, H301 Expl. 1.1, H201	Acute Tox. Dermal 3, H311 Acute Tox. Inhal. 3, H331 Acute Tox. Oral 3, H301 Expl. 1.1, H201	
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See section 8 for available Occupational exposure limits  
See Section 15 for additional regulatory information  
See Section 16 for description of hazard class and hazard statements

## Section 4 First Aid Measures

### 4.1 Description of first aid measures

<b>Inhalation</b>	If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration by trained personnel and obtain medical attention immediately.
<b>Eye Contact</b>	If product enters eyes, rinse eyes gently with water for 15 minutes or longer, making sure that the eyelid is held open. Obtain medical advice/attention.
<b>Skin Contact</b>	In case of skin contact, rinse with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Obtain medical advice/attention.
<b>Ingestion</b>	If product is ingested, rinse mouth with water. If irritation or discomfort occurs, obtain medical attention immediately.

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

Corrosive. May cause burns to eyes, skin and respiratory tract.  
See Section 11 Toxicological Information for more detailed health information.

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

No further relevant information available. Refer to Section 4.1.

## Section 5 Fire Fighting Measures

**5.1 Extinguishing Media** In case of fire use carbon dioxide (CO<sub>2</sub>), dry chemical, water spray or foam. For large fires use extinguishing media suitable for surrounding fire.

### 5.2 Special hazards arising from the substance or mixture Special Fire and Explosion Hazards

No special hazards determined.

#### Hazardous Combustion Products

No combustion products posing significant hazards are expected from this product (an aqueous solution).

### 5.3 Advice for fire fighters

#### Protective Equipment

Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

### 5.4 Additional information

No further relevant information available.

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## Section 6 Accidental Release Measures

---

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

**Personal Precautions** Wear protective gloves, protective clothing and tightly sealed eye/face protection. Observe general safety guidelines for protection; avoid eye and skin contact.

**6.2 Environmental Precautions** Contain spill to prevent migration. Do not allow the undiluted product to enter sewers/surface or ground water.

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

**Spill and Leak Procedures** Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.

**6.4 Reference to other sections** Refer sections 8 and 13.

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## Section 7 Handling and Storage

---

**7.1 Precautions for safe handling** Use good laboratory procedures; avoid eye and skin contact.

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

Store at 2 to 8°C, as directed on the product label.  
To maintain product quality, store according to the instructions in the product labeling.  
Store away from strong acids, strong bases, strong oxidizers and incompatible materials (section 10).

**7.3 Specific end uses** No further relevant information available.

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## Section 8 Exposure Controls and Personal Protection

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### 8.1 Control parameters

#### Exposure Limits

##### US OSHA

Picric Acid  
CAS # 88-89-1 0.1 mg/m<sup>3</sup> TWA; prevent or reduce skin absorption

##### ACGIH

Picric Acid  
CAS # 88-89-1 0.1 mg/m<sup>3</sup> TWA

##### DFG MAK

Picric Acid  
CAS # 88-89-1 skin notation

##### Ireland

Picric Acid  
CAS # 88-89-1 0.1 mg/m<sup>3</sup> TWA; 0.3 mg/m<sup>3</sup> STEL; Potential for cutaneous absorption

##### IOELVs

None established



## SAFETY DATA SHEET

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### Section 9 Physical and Chemical Properties (Continued)

<b>Vapor Density</b>	Not determined	<b>Oxidizing Properties</b>	Not applicable
<b>Odor Threshold</b>	Not applicable		
<b>9.2 Other Information</b>	No further relevant information available.		

### Section 10 Stability and Reactivity

<b>10.1 Reactivity</b>	No further relevant information available.
<b>10.2 Chemical Stability</b>	The product is stable in accordance with recommended storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	No further relevant information available.
<b>10.4 Conditions to Avoid</b>	To maintain product performance keep away from strong acids, strong bases, strong oxidizers. Avoid exposure to heat and direct sunlight.
<b>10.5 Incompatible materials</b>	No further relevant information available.
<b>10.6 Hazardous Decomposition Products</b>	No decomposition products posing significant hazards would be expected from this product (an aqueous solution).

### Section 11 Toxicological Information

<b>11.1 Information on toxicological effects</b>	
<b>Toxicity Data for Hazardous Ingredients</b>	
Picric Acid CAS # 88-89-1	Oral LD50 Rat 200 mg/kg
<b>Primary Routes of Exposure</b>	Eye contact, ingestion, inhalation, and skin contact.
<b>Acute Toxicity</b>	Not classified based on available data.
<b>Skin Corrosion/Irritation</b>	Contact may cause severe skin burns.
<b>Serious eye damage/eye irritation</b>	Contact may cause serious eye damage.
<b>Respiratory/skin sensitization</b>	Not classified based on available data.
<b>Carcinogenicity</b>	No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 1272/2008 EC regulation.
<b>Germ cell mutagenicity</b>	Not classified based on available data.
<b>Reproductive Toxicity</b>	Not classified based on available data.

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## Section 11 Toxicological Information (Continued)

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### Specific target organ toxicity – single exposure

Not classified based on available data.

### Specific target organ toxicity – repeated exposure

Not classified based on available data.

### Aspiration hazard

Not classified based on available data.

### Other Information

No further relevant information available.

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## Section 12 Ecological Information

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### 12.1 Ecotoxicity

#### Fresh Water Species

No information available.

#### Microtox

No information available.

#### Water Flea

No information available.

#### Fresh Water Algae

No information available.

**12.2 Persistence and degradability** Not determined for the product.

**12.3 Bioaccumulation** Not determined for the product.

**12.4 Mobility in soil** Not determined for the product.

### 12.5 Results of PBT and vPvB assessment

Not determined for the product. PBT: Not applicable, vPvB: Not applicable.

**12.6 Other Adverse Effects** No further relevant information available.

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## Section 13 Disposal Considerations

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### 13.1 Waste treatment methods

#### Product Waste Disposal

Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information.

#### Package disposal

Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

### 13.2 Additional information

Suggested European waste catalogue 18 01 06\* - chemicals consisting of or containing dangerous substances. Dispose in accordance with national, state and local waste regulations.

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## Section 14 Transport Information

Transportation of this product is not regulated under ICAO, IATA DGR, IMDG, US DOT, European ADR and RID or Canadian TDG.

- 14.1 UN/ID Number:** Not regulated for transportation
- 14.2 Shipping Name:** Not regulated for transportation
- 14.3 Hazard Class:** Not regulated for transportation
- 14.4 Packing Group:** Not regulated for transportation
- 14.5 Environmental Hazards:** Not regulated for transportation
- 14.6 Special Precautions for user:** None
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** Not applicable

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## Section 15 Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### US Federal and State Regulations

##### **SARA 313 (Section 313, Title III reporting requirements)**

CAS # 88-89-1

Picric Acid

1.0% de minimis concentration

##### **CERCLA (The Comprehensive Environmental Response, Compensation, and Liability Act) 40 CFR 302.4**

No ingredients listed.

##### **California Proposition 65**

###### **Chemical which is known to the State of California to cause cancer**

No ingredients listed.

###### **Chemical which is known to the State of California to cause development toxicity**

No ingredients listed.

###### **Chemical which is known to the State of California to cause male reproductive toxicity**

No ingredients listed.

###### **Chemical which is known to the State of California to cause female reproductive toxicity**

No ingredients listed.

##### **Massachusetts Right To Know (RTK) List**

CAS # 88-89-1

Picric Acid

##### **New Jersey Dept. of Health Right To Know (RTK) List**

CAS # 88-89-1

Picric Acid

## Section 15 Regulatory Information (Continued)

### Pennsylvania Right To Know (RTK) List

CAS # 88-89-1                      Picric Acid

### EU Regulations

This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.

### **Water Hazard Class (Germany)**

WGK 1, low water endangering

### **REACH 1907/2006 EC - Annex XIV - list of substances subject to authorization.**

No ingredients listed.

### Canada

This product is exempt from WHMIS label and SDS requirements.

### **15.2 Chemical Safety Assessment**

A Chemical Safety Assessment has not been carried out.

*Some hazardous ingredients listed in Section 15 are below the cutoff limits of 0.1% for carcinogen, mutagen and reproductive toxin and 1% for other health hazards required for reporting in Section 3.*

## Section 16 Other Information

<b>Beckman Coulter Safety Rating</b>	<b>Flammability: 0</b> <b>Health: 3</b> <b>Reactivity with Water: 0</b> <b>Physical Contact: 3</b>	Code 0=None 1=Slight 2=Caution 3=Severe
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**Revision Changes**                      Removed the classification of EC Directives 1999/45/EC and 67/548/EEC from Sec. 2.1. Sec 3.2 and 15.1  
    Updated E-mail address in Sec. 1.3.  
    Updated Section 8, 11, 15, 16.  
    Updated Section 13.

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    Document ID: OSR6178-75  
    Version: 06

**Description of hazard Class and hazard statements from Section 3**  
    Acute Tox. Dermal 3 - Acute Toxicity Dermal, Category 3  
    Acute Tox. Inhal. 3 - Acute Toxicity Inhalation, Category 3  
    Acute Tox. Oral 3 - Acute Toxicity Oral, Category 3  
    Expl. 1.1 - Explosives, Division 1.1  
    H201 - Explosive; mass explosion hazard.  
    H301 - Toxic if swallowed.  
    H311 - Toxic in contact with skin.  
    H331 - Toxic if inhaled.

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## Section 16 Other Information (Continued)

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### Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists  
ADR and RID - European Agreement Concerning The International Carriage Of Dangerous Goods By Road and Rail  
CERCLA - The Comprehensive Environmental Response, Compensation, and Liability Act  
CLP - Classification, Labeling and Packaging  
DFGMAK - Republic Germany's maximum exposure limit  
GHS - Globally Harmonized System  
HCS - Hazard Communication Standard  
IARC - International Agency for Research on Cancer  
IATA DGR - International Air Transport Association Dangerous Goods Regulation  
ICAO - International Civil Aviation Organization  
IMDG - International Maritime Dangerous Goods  
IOELVs - European Unions' Indicative Occupational Exposure Limit Values  
NIOSH - National Institute for Occupational Safety and Health  
NTP - National Toxicology Program  
OSHA - Occupational Safety and Health Administration  
PBT - Persistent bioaccumulative and toxic substances  
SARA - Superfund Amendments and Reauthorization Act  
TDG - Canadian Transportation Of Dangerous Goods Regulations.  
UN GHS - United Nations Globally Harmonized System  
US DOT - United States Department of Transportation  
WHMIS - Workplace Hazardous Material Information System  
vPvB - Very persistent and very bioaccumulative substances  
LD50 - Lethal Dose, 50%

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For further information, please contact your local Beckman Coulter, Inc. representative.

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