

**Kit SDS Cover Sheet**Doc. ID: 628020-75: Rev. AF  
Revised (year/month/day) 2015/03/31

---

**Product Information****Product Name** Coulter® DxH Diff Pack**Part Number** 628020**Additional Product Information**

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

---

**Components****Description**      StabiLyse™ Reagent  
Erythrolyse II Reagent

---

**Transport Information**

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



## SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

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

#### 1.1 Product Identifier

**Product Name** StabiLyse™ Reagent  
**Part Number** Component of P/N 628020

#### 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 Eurocenter S.A.  
22, rue Juste-Oliver, Case Postale 1044,  
CH-1260 Nyon 1, Switzerland.  
Telephone +41 (0)22 365 36 11  
Monday through Friday, 9:00 am to  
7:00pm)

**e-mail address** SDSNT@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

##### 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** Mixture  
Colorless; Clear; Liquid; Odorless

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

Not classified as hazardous per EC 1272/2008 (CLP/GHS)

##### Classification according to EC Directives 1999/45/EC and 67/548/EEC

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

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

Not classified as hazardous per US-OSHA HCS 2012 and UN GHS

#### 2.2 Label Elements

**According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS**  
Not classified as hazardous per EC 1272/2008 (CLP/GHS)

## SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

### Section 2 Hazards Identification (Continued)

#### 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: None

### Section 4 First Aid Measures

#### 4.1 Description of first aid measures

##### Inhalation

If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.

##### Eye Contact

If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.

##### Skin Contact

In case of skin contact, flush with copious amounts of water for at least 15 minutes. If pain or irritation occur, obtain medical attention.

##### Ingestion

If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

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

No adverse symptoms or effects have been identified.

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

No specific medical attention or treatment required.

### Section 5 Fire Fighting Measures

#### Flammable Properties

Nonflammable aqueous solution.

#### 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).

## SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

### Section 5 Fire Fighting Measures (Continued)

#### 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.

### Section 6 Accidental Release Measures

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

##### Personal Precautions

No special precautions are necessary. Use good laboratory procedures. Wear protective gloves, protective clothing and eye/face protection.

#### 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.

### Section 7 Handling and Storage

#### 7.1 Precautions for safe handling

No special precautions are necessary; use good laboratory procedures.

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

Store at 2 to 25°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.

### Section 8 Exposure Controls and Personal Protection

#### 8.1 Control parameters

##### Exposure Limits

##### US OSHA

None established

##### ACGIH

None established

##### DFG MAK

None established

##### Ireland

None established

##### IOELVs

None established

##### NIOSH

None established

# SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

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

<b>Japan</b>	None established
<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>	Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.
<b>Respiratory Protection</b>	Under normal conditions, the use of this product should not require respiratory protection.

## 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>	1.05 @20°C
<b>Color</b>	Colorless	<b>Solubility</b>	
<b>Transparency</b>	Clear	<b>Water</b>	Miscible
<b>Odor</b>	Odorless	<b>Organic</b>	Not determined
<b>pH</b>	11	<b>Partition coefficient: n-octanol/water</b>	Not determined
<b>Freezing Point</b>	Not determined	<b>Auto-ignition Temp.</b>	Not applicable
<b>Boiling Point</b>	Not determined	<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>	Not determined
<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
<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.
------------------------	--

## SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

### Section 10 Stability and Reactivity (Continued)

---

<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>	Avoid exposure to heat and direct sunlight. To maintain product performance keep away from strong acids, strong bases, strong oxidizers.
<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>	Not applicable
<b>Primary Routes of Exposure</b>	Eye contact, ingestion, inhalation, and skin contact.
<b>Skin Corrosion/Irritation</b>	No data available.
<b>Serious eye damage/eye irritation</b>	No data available.
<b>Respiratory/skin sensitization</b>	No data available.
<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>	No data available.
<b>Reproductive Toxicity</b>	No data available.
<b>Specific target organ toxicity – single exposure</b>	No data available.
<b>Specific target organ toxicity – repeated exposure</b>	No data available.
<b>Aspiration hazard</b>	No data available.
<b>Other Information</b>	No further relevant information available.

### Section 12 Ecological Information

---

<b>12.1 Ecotoxicity</b>	
<b>Fresh Water Species</b>	No information available.

## SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

### Section 12 Ecological Information (Continued)

<b>Microtox</b>	No information available.
<b>Water Flea</b>	No information available.
<b>Fresh Water Algae</b>	No information available.
<b>12.2 Persistence and degradability</b>	Not determined for the product.
<b>12.3 Bioaccumulation</b>	Not determined for the product.
<b>12.4 Mobility in soil</b>	Not determined for the product.
<b>12.5 Results of PBT and vPvB assessment</b>	Not determined for the product. PBT: Not applicable, vPvB: Not applicable.
<b>12.6 Other Adverse Effects</b>	No further relevant information available.

### Section 13 Disposal Considerations

<b>13.1 Waste treatment methods</b>	
<b>Product Waste Disposal</b>	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.
<b>13.2 Additional information</b>	Suggested European waste catalogue 18 01 07 - chemicals other than those mentioned in 18 01 06. Dispose in accordance with national, state and local waste regulations.

### Section 14 Transport Information

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

### Section 15 Regulatory Information

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

##### US Federal and State Regulations

<b>SARA 313</b>	No ingredients listed.
<b>California Proposition 65</b>	No ingredients listed.
<b>Massachusetts MSL</b>	Sodium Sulfate is listed.
<b>New Jersey Dept. of Health RTK List</b>	

No ingredients listed.

<b>Pennsylvania RTK</b>	Sodium Sulfate is listed.
-------------------------	---------------------------

##### EU Regulations

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

**Water Hazard Class (Germany)** WGK 1, low water endangering

## Section 15 Regulatory Information (Continued)

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

No ingredients listed.

### According to EC Directives (1999/45/EC and 67/548 EEC)

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

### Canada

This product is exempt from WHMIS label and SDS requirements.

**PIN** Not applicable

### Ingredients on Ingredient Disclosure List

Sodium Carbonate

### Ingredients with unknown toxicological properties

Product is exempt

### 15.2 Chemical Safety Assessment A Chemical Safety Assessment has not been carried out.

*Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.*

## Section 16 Other Information

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

### Revision Changes

Updated to GHS.

### Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists  
ADR - European Agreement Concerning The International Carriage Of Dangerous Goods By Road  
CERCLA - The Comprehensive Environmental Response, Compensation, and Liability Act  
CLP - Classification, Labeling and Packaging  
DFGMK - Republic Germany's maximum exposure limit  
GHS - Globally Harmonized System  
HCS - Hazard Communication Standard  
IARC - Internal Agency for Research on Cancer  
IATA - International Air Transport Association  
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.



## SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

---

### Section 16 Other Information (Continued)

---

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

---

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

WHILE BECKMAN COULTER, INC. BELIEVES THE INFORMATION CONTAINED HEREIN IS VALID AND ACCURATE, MAKES NO WARRANTY OR REPRESENTATION AS TO ITS VALIDITY, ACCURACY, OR CURRENCY. BECKMAN COULTER, INC. SHALL NOT BE LIABLE OR OTHERWISE RESPONSIBLE IN ANY WAY FOR USE OF EITHER THIS INFORMATION OR MATERIALS TO WHICH IT APPLIES. DISPOSAL OF HAZARDOUS MATERIALS MAY BE SUBJECT TO LOCAL LAWS OR REGULATIONS.

**SAFETY DATA SHEET**Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31**Section 1 Identification of the Substance/mixture and of the Company/undertaking****1.1 Product Identifier**

**Product Name** Erythrolyse II Reagent  
**Part Number** Component of P/N 628020

**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 Eurocenter S.A.  
22, rue Juste-Oliver, Case Postale 1044,  
CH-1260 Nyon 1, Switzerland.  
Telephone +41 (0)22 365 36 11  
Monday through Friday, 9:00 am to  
7:00pm)

**e-mail address** SDSNT@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

**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** Mixture  
Light yellow; Clear; Liquid; Odorless

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

Not classified as hazardous per EC 1272/2008 (CLP/GHS)

**Classification according to EC Directives 1999/45/EC and 67/548/EEC**

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

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

Skin Irritation Category 3

# SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

## Section 2 Hazards Identification (Continued)

### 2.2 Label Elements

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

#### Hazardous Ingredients

Formic Acid

Diazolidinyl Urea

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC# 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC# 220-239-6](3:1)

#### Pictogram

None

#### Signal Word

WARNING

#### Hazard Statements

H316 Causes mild skin irritation.

EUH208 May produce an allergic reaction.

#### Precautionary Statements

P332+P313 If skin irritation occurs: Get medical advice/attention.

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-67/548/EEC	EU 1272/2008 CLP/GHS	GHS	
Formic Acid CAS # 64-18-6 EINECS # 200-579-1 Index # 607-001-00-0	< 1	C;R35	Acute Tox. Oral 4 Eye Dam. 1 Skin Corr. 1A H302; H314; H318	Acute Tox. Oral 4 Aquatic Acute 3 Eye Dam. 1 Flam. Liq. 4 Skin Corr. 1A H227; H302; H314; H318; H402	
Diazolidinyl Urea CAS # 78491-02-8 EINECS # 278-928-2 Index # Not available	< 0.1	Xi;R43	Skin Sens. 1 H317	Acute Tox. Dermal 5 Acute Tox. Oral 5 Skin Sens. 1 H303; H313; H317	15, 8

## SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

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

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC# 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC# 220-239-6](3:1) CAS # 55965-84-9 EINECS # Not available Index # Not available	< 0.0015	T;R23/24/25-34-43 N;R50/53	Acute Tox. Dermal 3 Acute Tox. Inhal. 3 Acute Tox. Oral 3 Aquatic Acute 1 Aquatic Longterm 1 Skin Corr. 1B Skin Sens. 1 H301; H311; H314; H317; H331; H400; H410	Acute Tox. Dermal 3 Acute Tox. Inhal. 3 Acute Tox. Oral 3 Aquatic Acute 1 Aquatic Longterm 1 Skin Corr. 1B Skin Sens. 1 H301; H311; H314; H317; H331; H400; H410	10, 15, 8
--	----------	-------------------------------	---	---	-----------

10 - Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one [EC# 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC# 220-239-6] (3:1) is the active ingredient of ProClin 150.

15 - May produce an allergic reaction.

8 - Present at concentration below the cut-off limits.

See section 8 for available Occupational exposure limits

See Section 15 for additional regulatory information

See Section 16 for hazard class, hazard statements and risk phrase description

### 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 immediately and obtain medical attention.
<b>Eye Contact</b>	If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.
<b>Skin Contact</b>	In case of skin contact, flush with copious amounts of water for at least 15 minutes. If pain or irritation occur, obtain medical attention.
<b>Ingestion</b>	If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

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

Causes mild skin irritation.

This product contains a sensitizing substance below concentration limit, may produce an allergic reaction in some people. Refer Section 3.

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.

### Section 5 Fire Fighting Measures

**Flammable Properties** Nonflammable aqueous solution.

**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**

## SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

### Section 5 Fire Fighting Measures (Continued)

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.

### Section 6 Accidental Release Measures

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

##### Personal Precautions

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

#### 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.

### 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 25°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.

### Section 8 Exposure Controls and Personal Protection

#### 8.1 Control parameters

##### Exposure Limits

##### US OSHA

Formic Acid  
CAS # 64-18-6

5 ppm TWA; 9 mg/m<sup>3</sup> TWA

# SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

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

### ACGIH

Formic Acid  
CAS # 64-18-6 10 ppm STEL; 5 ppm TWA

### DFG MAK

Formic Acid  
CAS # 64-18-6 10 ppm Peak; 19 mg/m<sup>3</sup> Peak; 5 ppm TWA MAK; 9.5 mg/m<sup>3</sup> TWA MAK

### Ireland

Formic Acid  
CAS # 64-18-6 5 ppm TWA; 9 mg/m<sup>3</sup> TWA

### IOELVs

Formic Acid  
CAS # 64-18-6 5 ppm TWA; 9 mg/m<sup>3</sup> TWA

### NIOSH

Formic Acid  
CAS # 64-18-6 30 ppm IDLH; 5 ppm TWA; 9 mg/m<sup>3</sup> TWA

### Japan

Formic Acid  
CAS # 64-18-6 5 ppm OEL; 9.4 mg/m<sup>3</sup> OEL

## 8.2 Exposure controls

### Engineering Controls

No special engineering controls are required. Use with good general ventilation.

### Eye Protection

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.

### Skin Protection

Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact.  
Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.

### Respiratory Protection

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

### 9.1 Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Specific Gravity (Water=1.0)</b>	1.0 @20°C
<b>Color</b>	Light yellow	<b>Solubility</b>	
<b>Transparency</b>	Clear	<b>Water</b>	Miscible
<b>Odor</b>	Odorless	<b>Organic</b>	Not determined

# SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

## Section 9 Physical and Chemical Properties (Continued)

<b>pH</b>	2.7	<b>Partition coefficient: n-octanol/water</b>	Not determined
<b>Freezing Point</b>	Not determined	<b>Auto-ignition Temp.</b>	Not applicable
<b>Boiling Point</b>	Not determined	<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>	Not determined
<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
<b>Odor Threshold</b>	Formic Acid no geometric mean air odor threshold		
<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>	
Formic Acid CAS # 64-18-6	Oral LD50 Rat 730 mg/kg
<b>Primary Routes of Exposure</b>	Eye contact, ingestion, inhalation, and skin contact.
<b>Skin Corrosion/Irritation</b>	Causes mild skin irritation.

## SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

### Section 11 Toxicological Information (Continued)

<b>Serious eye damage/eye irritation</b>	No data available.
<b>Respiratory/skin sensitization</b>	This product contains a sensitizing substance below concentration limit, may produce an allergic reaction in some people. Refer Section 3.
<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>	No data available.
<b>Reproductive Toxicity</b>	No data available.
<b>Specific target organ toxicity – single exposure</b>	No data available.
<b>Specific target organ toxicity – repeated exposure</b>	No data available.
<b>Aspiration hazard</b>	No data available.
<b>Other Information</b>	No further relevant information available.

### Section 12 Ecological Information

<b>12.1 Ecotoxicity</b>	
<b>Fresh Water Species</b>	No information available.
<b>Microtox</b>	No information available.
<b>Water Flea</b>	
Formic Acid CAS # 64-18-6	48 h EC50 Daphnia magna: 120 mg/L; 48 h EC50 Daphnia magna: 138 - 165.6 mg/L [Static]
<b>Fresh Water Algae</b>	
Formic Acid CAS # 64-18-6	96 h EC50 Desmodesmus subspicatus: 25 mg/L; 72 h EC50 Desmodesmus subspicatus: 26.9 mg/L
<b>12.2 Persistence and degradability</b>	Not determined for the product.
<b>12.3 Bioaccumulation</b>	Not determined for the product.
<b>12.4 Mobility in soil</b>	Not determined for the product.



## SAFETY DATA SHEET

Doc. ID: 628020-75 Rev. AF  
Revised (year/month/day) 2015/03/31

### Section 12 Ecological Information (Continued)

#### 12.5 Results of PBT and vPvB assessment

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

#### 12.6 Other Adverse Effects

This product contains environmentally hazardous substance below the cutoff level. Refer section 3 for ingredient information. Do not allow undiluted product to enter sewer/surface or ground water.

### Section 13 Disposal Considerations

#### 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.

#### 13.2 Additional information

Suggested European waste catalogue 18 01 07 - chemicals other than those mentioned in 18 01 06. Dispose in accordance with national, state and local waste regulations.

### Section 14 Transport Information

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

### 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

Formic Acid is subject to reporting requirements of Section 313, Title III of SARA. 1.0 % de minimis concentration

##### CERCLA RG's, 40 CFR 302.4

Formic Acid is listed.

##### California Proposition 65

No ingredients listed.

##### Massachusetts MSL

Formic Acid is listed.  
Magnesium Nitrate is listed.

##### New Jersey Dept. of Health RTK List

Formic Acid is listed.  
Magnesium Nitrate is listed.

##### Pennsylvania RTK

Formic Acid is listed.  
Magnesium Nitrate is listed.

##### EU Regulations

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

**Water Hazard Class (Germany)** WGK 1, low water endangering

## Section 15 Regulatory Information (Continued)

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

No ingredients listed.

### According to EC Directives (1999/45/EC and 67/548 EEC)

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

### Canada

This product is exempt from WHMIS label and SDS requirements.

**PIN** Not applicable

### Ingredients on Ingredient Disclosure List

Formic Acid

### Ingredients with unknown toxicological properties

Product is exempt

### 15.2 Chemical Safety Assessment A Chemical Safety Assessment has not been carried out.

*Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.*

## Section 16 Other Information

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

**Revision Changes** Updated to GHS.

### Hazard Class, hazard statements and risk phrase description from section 3

C - Corrosive

N - Dangerous for the environment

T - Toxic

Xi - Irritant

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R34 Causes burns.

R43 May cause sensitization by skin contact.

R35 Causes severe burns.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Aquatic Acute 1 - Aquatic Hazard Acute, Category 1

Aquatic Acute 3 - Aquatic Hazard Acute, Category 3

Acute Tox. Dermal 3 - Acute Toxicity Dermal, Category 3

Acute Tox. Dermal 5 - Acute Toxicity Dermal, Category 5

Acute Tox. Inhal. 3 - Acute Toxicity Inhalation, Category 3

Acute Tox. Oral 3 - Acute Toxicity Oral, Category 3

Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4

Acute Tox. Oral 5 - Acute Toxicity Oral, Category 5

Eye Dam. 1 - Eye Damage Category 1

## Section 16 Other Information (Continued)

Flam. Liq. 4 - Flammable Liquids, Category 4  
Aquatic Longterm 1 - Aquatic Hazard Long term, Category 1  
Skin Corr. 1A - Skin Corrosion Category 1A  
Skin Corr. 1B - Skin Corrosion Category 1B  
Skin Sens. 1 - Skin Sensitization Category 1  
H227 - Combustible Liquid  
H301 - Toxic if swallowed.  
H302 - Harmful if swallowed.  
H303 - May be harmful if swallowed  
H311 - Toxic in contact with skin.  
H313 - May be harmful In contact with skin  
H314 - Causes severe skin burns and eye damage.  
H317 - May cause an allergic skin reaction.  
H318 - Causes serious eye damage.  
H331 - Toxic if inhaled.  
H400 - Very toxic to aquatic life.  
H402 - Harmful to aquatic life.  
H410 - Very toxic to aquatic life with long lasting effects.

### Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists  
ADR - European Agreement Concerning The International Carriage Of Dangerous Goods By Road  
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 - Internal Agency for Research on Cancer  
IATA - International Air Transport Association  
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  
EC50 - Effective Concentration, 50%

---

## Section 16 Other Information (Continued)

---

LC50 - Lethal Concentration, 50%

LD50 - Lethal Dose, 50%

---

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

WHILE BECKMAN COULTER, INC. BELIEVES THE INFORMATION CONTAINED HEREIN IS VALID AND ACCURATE, MAKES NO WARRANTY OR REPRESENTATION AS TO ITS VALIDITY, ACCURACY, OR CURRENCY. BECKMAN COULTER, INC. SHALL NOT BE LIABLE OR OTHERWISE RESPONSIBLE IN ANY WAY FOR USE OF EITHER THIS INFORMATION OR MATERIALS TO WHICH IT APPLIES. DISPOSAL OF HAZARDOUS MATERIALS MAY BE SUBJECT TO LOCAL LAWS OR REGULATIONS.