

## Kit components

Product Formamide, 100ml

Product code H5051

<b>Substance number</b>	<b>Description</b>	<b>Amount</b>	<b>Symbols</b>
H505	Formamide	1	T



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 02/05/2019

Reviewed on 04/02/2018

**1 Identification**

**Product identifier**

**Trade name:** Formamide

**Article number:** H505

**CAS Number:**

75-12-7

**EC number:**

200-842-0

**Index number:**

616-052-00-8

**Application of the substance / the mixture** Laboratory chemicals

**Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification**

**Classification of the substance or mixture**



GHS08 Health hazard

Muta. 1B H340 May cause genetic defects.

Repr. 1B H360 May damage fertility or the unborn child.

**Label elements**

**GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms** GHS08

**Signal word** Danger

**Hazard-determining components of labeling:**

formamide

**Hazard statements**

May cause genetic defects.

May damage fertility or the unborn child.

**Precautionary statements**

Obtain special instructions before use.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/05/2019

Reviewed on 04/02/2018

**Trade name: Formamide**

(Contd. of page 1)

Do not handle until all safety precautions have been read and understood.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 IF exposed or concerned: Get medical advice/attention.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 1

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 2

Fire = 1

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):**

Toxic

Reproductive Hazard

**Primary route(s) of entry:** Oral**Target Organ(s):**

May affect Nervous system (Neurotoxin)

May affect Reproductive System (Mutagen, Teratogen)

Affects Blood (Hematopoietic system)

Risk of damage to eyes

**Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

### \* 3 Composition/information on ingredients

**Chemical characterization: Substances****CAS No. Description**

75-12-7 formamide

**Identification number(s)****EC number:** 200-842-0**Index number:** 616-052-00-8

### \* 4 First-aid measures

**Description of first aid measures****After inhalation:** If the patient feels unwell or is concerned, obtain medical advice.**After skin contact:** Generally the product does not irritate the skin.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** If the patient feels unwell or is concerned, obtain medical advice.**Information for doctor:****Most important symptoms and effects, both acute and delayed**

Dizziness

None

No further relevant information available.

(Contd. on page 3)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/05/2019

Reviewed on 04/02/2018

**Trade name: Formamide**

(Contd. of page 2)

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

## 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

**Advice for firefighters** In the case of fire, wear respiratory protective equipment and chemical protective suit.

## 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Remove persons from danger area.

Wear protective clothing.

**Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to Section 13.

Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 13 for disposal information.

## 7 Handling and storage

**Handling:**

**Precautions for safe handling** Keep receptacles tightly sealed.

**Information about protection against explosions and fires:** No special measures required.

**Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

75-12-7 formamide

REL	Long-term value: 15 mg/m <sup>3</sup> , 10 ppm
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	Skin
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(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/05/2019

Reviewed on 04/02/2018

Trade name: **Formamide**

(Contd. of page 3)

TLV	Long-term value: 18 mg/m <sup>3</sup> , 10 ppm Skin
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**Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Pregnant women should strictly avoid inhalation or skin contact.

Do not eat or drink while working.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**

Protective gloves

Select the glove material considering penetration time, rate of diffusion and degradation time.

It is recommended that the selected protective gloves be tested and approved under NIOSH or EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Eye protection:**

Safety glasses

Use equipment for eye protection tested and approved under government NIOSH standards.

## 9 Physical and chemical properties

**Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

**Change in condition**

<b>Melting point/Melting range:</b>	2.5 °C (36.5 °F)
<b>Boiling point/Boiling range:</b>	210.5 °C (410.9 °F)
<b>Flash point:</b>	175 °C (347 °F)

<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Decomposition temperature:</b>	Not determined.

<b>Auto igniting:</b>	Not determined.
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<b>Danger of explosion:</b>	Product does not present an explosion hazard.
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**Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure at 20 °C (68 °F):</b>	0.03 hPa (0 mm Hg)

<b>Density at 20 °C (68 °F):</b>	1.134 g/cm <sup>3</sup> (9.46323 lbs/gal)
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(Contd. on page 5)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/05/2019

Reviewed on 04/02/2018

Trade name: **Formamide**

(Contd. of page 4)

<b>Relative density</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Organic solvents:</b>	100.0 %
<b>VOC content:</b>	100.00 %
<b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

### Information on toxicological effects

#### Acute toxicity:

#### LD/LC50 values that are relevant for classification:

#### 75-12-7 formamide

Oral	LD50	5,570 mg/kg (Rat)
Irritation of eyes	acute	100 mg (Rabbit) Severe

#### Primary irritant effect:

**on the skin:** No irritant effect.

**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

#### Additional toxicological information:

#### Carcinogenic categories

#### IARC (International Agency for Research on Cancer)

Substance is not listed.

#### NTP (National Toxicology Program)

Substance is not listed.

#### OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/05/2019

Reviewed on 04/02/2018

Trade name: **Formamide**

(Contd. of page 5)

## 12 Ecological information

**Toxicity***Aquatic toxicity: Not harmful to the aquatic environment***Persistence and degradability***Not available**No further relevant information available.***Behavior in environmental systems:****Bioaccumulative potential***Not known**No further relevant information available.***Mobility in soil** *No further relevant information available.***Ecotoxicological effects:****Remark:** *Not available***Additional ecological information:****General notes:***Water hazard class 1 (Assessment by list): slightly hazardous for water**Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.***Results of PBT and vPvB assessment****PBT:** *Not applicable.***vPvB:** *Not applicable.***Other adverse effects** *No further relevant information available.*

## 13 Disposal considerations

**Waste treatment methods****Recommendation:***Disposal should be in accordance with applicable regional, national and local laws and regulations.**Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.***Uncleaned packagings:****Recommendation:** *Disposal must be made according to official regulations.***Recommended cleansing agent:** *Water, if necessary with cleansing agents.*

## 14 Transport information

<b>UN-Number</b>	<i>Not hazardous for transportation</i>
<b>DOT, ADR, ADN, IMDG, IATA</b>	<i>Void</i>
<b>UN proper shipping name</b>	<i>None</i>
<b>DOT, ADR, ADN, IMDG, IATA</b>	<i>Void</i>
<b>Transport hazard class(es)</b>	<i>None</i>
<b>DOT, ADR, ADN, IMDG, IATA</b>	
<b>Class</b>	<i>Void</i>
<b>Packing group</b>	<i>None</i>
<b>DOT, ADR, IMDG, IATA</b>	<i>Void</i>
<b>Environmental hazards:</b>	
<b>Marine pollutant:</b>	<i>No</i>

(Contd. on page 7)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 02/05/2019

Reviewed on 04/02/2018

**Trade name: Formamide**

(Contd. of page 6)

**Special precautions for user**                      *Not applicable.*

**Transport in bulk according to Annex II of  
MARPOL 73/78 and the IBC Code**                      *Not applicable.*

**UN "Model Regulation":**                      *Void*

## 15 Regulatory information

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

**Sara**

**Section 355 (extremely hazardous substances):**

*Substance is not listed.*

**Section 313 (Specific toxic chemical listings):**

*Substance is not listed.*

**TSCA (Toxic Substances Control Act) Inventory:**

*Substance is listed.*

**Proposition 65**

**Chemicals known to cause cancer:**

*Substance is not listed.*

**Chemicals known to cause reproductive toxicity for females:**

*Substance is not listed.*

**Chemicals known to cause reproductive toxicity for males:**

*Substance is not listed.*

**Chemicals known to cause developmental toxicity:**

*Substance is not listed.*

**Carcinogenicity categories**

**EPA (Environmental Protection Agency)**

*Substance is not listed.*

**TLV (Threshold Limit Value established by ACGIH)**

*Substance is not listed.*

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

*Substance is not listed.*

**GHS label elements**

*The substance is classified and labeled according to the Globally Harmonized System (GHS).*

**Signal word** *Danger*

**Hazard-determining components of labeling:**

*formamide*

**Hazard statements**

*May cause genetic defects.*

*May damage fertility or the unborn child.*

**Precautionary statements**

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

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

*IF exposed or concerned: Get medical advice/attention.*

(Contd. on page 8)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 02/05/2019

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**Trade name: Formamide**

(Contd. of page 7)

*Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.***National regulations:****Water hazard class:** *Water hazard class 1 (Assessment by list): slightly hazardous for water.***Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**Department issuing SDS:***Promega Corporation**Environmental Health and Safety Department**2800 Woods Hollow Road**Madison, WI**Ph: (608)274-4330***Date of preparation / last revision** 02/05/2019 / -**Abbreviations and acronyms:***ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**ACGIH: American Conference of Governmental Industrial Hygienists**EINECS: European Inventory of Existing Commercial Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**OSHA: Occupational Safety & Health**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**Muta. 1B: Germ cell mutagenicity – Category 1B**Repr. 1B: Reproductive toxicity – Category 1B***\* Data compared to the previous version altered.**