# SAFETY DATA SHEET according to the OSHA Hazard Communication Standard

Version 6.18
Revision Date 07/07/2026
Print Date 07/08/2026

## SECTION 1. IDENTIFICATION

### 1.1 Product identifiers

Product name : Formic acid

Product Number : W248703
Brand : Aldrich
Index-No. : 607-001-00-0
CAS-No. : 64-18-6

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

Identified uses : Laboratory chemicals, Synthesis of substances

Restrictions on use : Not Available

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

Company : Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES

Telephone : +1 314 771-5765
Fax : +1 800 325-5052

### 1.4 Emergency telephone number

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

## SECTION 2. HAZARDS IDENTIFICATION

**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

**Hazards for the product as supplied**

Flammable liquids : Category 3

Corrosive to metals : Category 1



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| | | |
|---|---|---|
| Acute toxicity (Oral) | : | Category 4 |
| Acute toxicity (Inhalation) | : | Category 3 |
| Skin corrosion | : | Sub-category 1A |
| Serious eye damage | : | Category 1 |

**Other hazards**

Corrosive to the respiratory tract.

**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.

Supplemental Hazard Statements : Corrosive to the respiratory tract.

Precautionary statements :

**Prevention:**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P234 Keep only in original packaging.
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 mist or vapours.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a



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POISON CENTER/ doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
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.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P390 Absorb spillage to prevent material damage.

**Storage:**

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.
P406 Store in a corrosion resistant container with a resistant inner liner.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

CAS-No. : 64-18-6

**Components**

| Chemical name | CAS No./Unique ID | Concentration (% w/w) | Trade secret |
|---|---|---|---|
| Formic acid | 64-18-6* | >= 80 - <= 100 | TSC |

* Indicates that the identifier is a CAS No.
TSC- the actual concentration or concentration range is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

General advice : First aiders need to protect themselves.
Show this safety data sheet to the doctor in attendance.

If inhaled : After inhalation: fresh air. Immediately call in



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| | | |
|---|---|---|
| | | physician.<br>If breathing stops: immediately apply artificial respiration, if necessary also oxygen. |
| In case of skin contact | : | In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.<br>Call a physician immediately. |
| In case of eye contact | : | After eye contact: rinse out with plenty of water.<br>Immediately call in ophthalmologist.<br>Remove contact lenses. |
| If swallowed | : | After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation).<br>Pulmonary failure possible after aspiration of vomit.<br>Call a physician immediately.<br>Do not attempt to neutralise. |
| Most important symptoms and effects, both acute and delayed | : | The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 |
| Protection of first-aiders | : | For personal protection see section 8. |
| Notes to physician | : | No data available |

## SECTION 5. FIREFIGHTING MEASURES

| | | |
|---|---|---|
| Suitable extinguishing media | : | Water<br>Foam<br>Carbon dioxide (CO2)<br>Dry powder |
| Unsuitable extinguishing media | : | For this substance/mixture no limitations of extinguishing agents are given. |
| Specific hazards during fire fighting | : | Combustible.<br><br>Vapours are heavier than air and may spread along floors.<br><br>Forms explosive mixtures with air at elevated temperatures.<br><br>Development of hazardous combustion gases or |



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vapours possible in the event of fire.

| | | |
|---|---|---|
| Hazardous combustion products | : | Carbon oxides |
| Specific extinguishing methods | : | No data available |
| Further information | : | Remove container from danger zone and cool with water.<br>Prevent fire extinguishing water from contaminating surface water or the ground water system. |
| Special protective equipment for fire-fighters | : | Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Advice for non-emergency personnel:<br>Do not breathe vapours, aerosols.<br>Avoid substance contact.<br>Ensure adequate ventilation.<br>Keep away from heat and sources of ignition.<br>Evacuate the danger area, observe emergency procedures, consult an expert.<br>Advice for emergency responders:<br>For personal protection see section 8. |
| Environmental precautions | : | Do not let product enter drains.<br>Risk of explosion. |
| Methods and materials for containment and cleaning up | : | Cover drains. Collect, bind, and pump off spills.<br>Observe possible material restrictions (see sections 7 and 10).<br>Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area. |

## SECTION 7. HANDLING AND STORAGE

For precautions see section 2.2.

| | | |
|---|---|---|
| Advice on protection against fire and explosion | : | Keep away from open flames, hot surfaces and sources of ignition.<br>Take precautionary measures against static discharge. |



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| | | |
|---|---|---|
| Advice on safe handling | : | Work under hood. Do not inhale substance/mixture.<br>Avoid generation of vapours/aerosols. |
| Conditions for safe storage | : | No metal containers. |
| Further information on storage conditions | : | Keep container tightly closed in a dry and well-ventilated place.<br>Keep away from heat and sources of ignition.<br>Keep locked up or in an area accessible only to qualified or authorised persons. |
| Storage class | : | 3, Flammable liquids |
| Recommended storage temperature | : | Recommended storage temperature see product label. |
| Further information on storage stability | : | Vent periodically.<br>Over time, pressure may increase causing containers to burst<br>Handle and open container with care.<br>hygroscopic |
| Packaging material | : | Suitable material: Poly Drum |

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ingredients with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| Formic acid | 64-18-6 | TWA | 5 ppm | ACGIH |
| | | TWA | 5 ppm<br>9 mg/m3 | NIOSH REL |
| | | TWA | 5 ppm<br>9 mg/m3 | OSHA Z-1 |
| | | TWA | 5 ppm<br>9 mg/m3 | OSHA P0 |

**Engineering measures** : No data available

**Personal protective equipment**

Respiratory protection : required when vapours/aerosols are generated.
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.



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| | | |
|---|---|---|
| Recommended Filter type: | : | Filter E-(P3) |

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Hand protection

| | | |
|---|---|---|
| Material | : | Chloroprene |
| Break through time | : | 480 min |
| Glove thickness | : | 0.65 mm |
| Protective index | : | Full contact |
| Manufacturer | : | KCL 720 Camapren® |
| | | |
| Material | : | Latex gloves |
| Break through time | : | 60 min |
| Glove thickness | : | 0.6 mm |
| Protective index | : | Splash contact |
| Manufacturer | : | Lapren® (KCL 706 / Aldrich Z677558, Size M) |
| | | |
| Remarks | : | This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). |

| | | |
|---|---|---|
| Eye protection | : | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).<br>Tightly fitting safety goggles |
| Skin and body protection | : | Flame retardant antistatic protective clothing. |
| Hygiene measures | : | Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | liquid |
| Colour | : | colourless |



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| | | |
|---|---|---|
| Odour | : | stinging |
| Odour Threshold | : | 0.02 ppm |
| pH | : | 2.2 (68 °F / 20 °C)<br>Concentration: 10 g/l |
| Melting point/ range | : | 47.3 °F / 8.5 °C<br><br>46.8 - 47.1 °F / 8.2 - 8.4 °C<br>Method: lit. |
| Boiling point/boiling range | : | 212 - 214 °F / 100 - 101 °C<br>Method: lit. |
| Flash point | : | 113 °F / 45 °C<br><br>Method: ISO 13736, closed cup<br>(own results) |
| Evaporation rate | : | No data available |
| Flammability (solid, gas) | : | No data available |
| Flammability (liquids) | : | No data available |
| Burning rate | : | No data available |
| Self-ignition | : | 982 °F / 528 °C<br>1,008 hPa<br>Method: Tested according to Directive 92/69/EEC.<br>GLP: yes |
| Upper explosion limit /<br>Upper flammability limit | : | Upper explosion limit<br>38 %(V) |
| Lower explosion limit /<br>Lower flammability limit | : | 18 %(V) |
| Vapour pressure | : | 171 hPa (122 °F / 50 °C)<br>Method: OECD Test Guideline 104<br>GLP: yes |
| Relative vapour density | : | 1.59<br>(Air = 1.0) |
| Relative density | : | 1.22 (68 °F / 20 °C)<br>Method: OECD Test Guideline 109<br>GLP: yes |



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| | | |
|---|---|---|
| Density | : | 1.22 g/mL (77 °F / 25 °C)<br>Method: lit.<br><br>1.22 g/mL (77 °F / 25 °C) |
| Solubility(ies)<br>Water solubility | : | miscible in all proportions, (experimental) (68 °F / 20 °C)<br>GLP: yes |
| Partition coefficient: n-octanol/water | : | log Pow: -2.1 (73 °F / 23 °C)<br>pH: 7<br>Method: OECD Test Guideline 107<br>GLP: yes<br>Bioaccumulation is not expected. |
| Autoignition temperature | : | 1004 °F / 540 °C |
| Decomposition temperature | : | 662 °F / 350 °C<br>Method: OECD Test Guideline 113 |
| Viscosity<br>Viscosity, dynamic | : | 1.8 mPa.s (68 °F / 20 °C)<br>Method: OECD Test Guideline 114<br>GLP: yes<br><br>1.22 mPa.s (104 °F / 40 °C)<br>Method: OECD Test Guideline 114<br>GLP: yes |
| Viscosity, kinematic | : | 1.47 mm2/s (68 °F / 20 °C)<br>Method: OECD Test Guideline 114<br>GLP: yes<br><br>1.02 mm2/s (104 °F / 40 °C)<br>Method: OECD Test Guideline 114<br>GLP: yes |
| Flow time | : | No data available |
| Explosive properties | : | Not classified as explosive. |
| Oxidizing properties | : | none |
| Surface tension | : | 71.5 mN/m, 1 g/l, 68 °F / 20 °C, OECD Test Guideline 115, GLP: yes |
| Molecular weight | : | 46.03 g/mol |
| Metal corrosion rate | : | May be corrosive to metals. |



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Particle characteristics
Particle size : No data available

## SECTION 10. STABILITY AND REACTIVITY

Reactivity : Vapour/air-mixtures are explosive at intense warming.

Chemical stability : The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions : Risk of ignition or formation of inflammable gases or vapours with:
Aluminium
Risk of explosion with:
organic nitro compounds
sodium hypochlorite
hydrogen peroxide
furfuryl alcohol
Generates dangerous gases or fumes in contact with:
alkalines
Strong oxidizing agents
sulfuric acid
nonmetallic oxides
metal catalysts
Oxides of phosphorus
Nitric acid
nitrates
Exothermic reaction with:
alkaline earth hydroxides
alkali hydroxides
bases
Amines

Conditions to avoid : Heating.

Incompatible materials : No data available

Hazardous decomposition products : In the event of fire: see section 5

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity**
LD50 Oral - Rat - male and female - 730 mg/kg
(OECD Test Guideline 401)
Remarks: (ECHA)
LC50 Inhalation - Rat - male and female - 4 h - 7.85 mg/l - vapour



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(OECD Test Guideline 403)
Dermal: No data available

**Skin corrosion/irritation**
Skin - Rabbit
Result: Causes severe burns.
(OECD Test Guideline 404)
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Serious eye damage/eye irritation**
Remarks: Causes serious eye damage.
conjunctivitis
Lacrimal irritation due to vapours.

**Respiratory or skin sensitization**
Buehler Test - Guinea pig
Result: negative
(OECD Test Guideline 406)
Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

**Germ cell mutagenicity**
Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Test Type: sister chromatid exchange assay
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 479
Result: negative
Test Type: sister chromatid exchange assay
Test system: Human lymphocytes
Metabolic activation: without metabolic activation
Method: OECD Test Guideline 479
Result: negative
Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Test Type: gene mutation test
Species: Drosophila melanogaster

Application Route: Oral
Method: OECD Test Guideline 477
Result: negative



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**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.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity**
No data available

**Specific target organ toxicity - single exposure**
Corrosive to the respiratory tract.

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

### 11.2 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 52 Weeks - No observed adverse effect level - 400 mg/kg - Lowest observed adverse effect level - 2,000 mg/kg
Remarks: (in analogy to similar products)

RTECS: LQ4900000
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 the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Kidney - Irregularities - Based on Human Evidence

Kidney - Irregularities - Based on Human Evidence

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

**Formic acid:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Danio rerio (zebra fish)): 130 mg/l<br>End point: mortality<br>Exposure time: 96 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 203<br>GLP: yes |



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| | | |
|---|---|---|
| | | Remarks: The value is given in analogy to the following substances:<br>The value is given in analogy to the following substances: ammonium formate |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 365 mg/l<br>End point: Immobilization<br>Exposure time: 48 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 202<br>GLP: yes<br>Remarks: The value is given in analogy to the following substances:<br>The value is given in analogy to the following substances: ammonium formate |
| Toxicity to algae/aquatic plants | : | ErC50 (Pseudokirchneriella subcapitata): 1,240 mg/l<br>Exposure time: 72 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 201<br>GLP: yes<br>Remarks: The value is given in analogy to the following substances:<br>The value is given in analogy to the following substances: ammonium formate |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): >= 100 mg/l<br>End point: reproduction rate<br>Exposure time: 21 d<br>Test Type: semi-static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 211<br>GLP: yes |
| Toxicity to microorganisms | : | NOEC (activated sludge): 72 mg/l<br>Exposure time: 13 d<br>Test Type: static test<br>Remarks: (ECHA) |

**Persistence and degradability**

**Components:**

**Formic acid:**

| | | |
|---|---|---|
| Biodegradability | : | aerobic<br>Inoculum: activated sludge<br>Concentration: 100 mg/l<br>Result: Readily biodegradable.<br>Biodegradation: 100 %<br>Exposure time: 14 d |



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Method: OECD Test Guideline 301C

| | | |
|---|---|---|
| Biochemical Oxygen Demand (BOD) | : | 86 mg/g<br>Incubation time: 5 d<br>Remarks: (External MSDS) |
| BOD/ThOD | : | 8.60 % |

**Bioaccumulative potential**

**Components:**

**Formic acid:**

| | | |
|---|---|---|
| Bioaccumulation | : | Remarks: Bioaccumulation is unlikely.<br><br>Remarks: Does not significantly accumulate in organisms. |
| Partition coefficient: n-octanol/water | : | log Pow: -2.1 (73 °F / 23 °C)<br>pH: 7<br>Method: OECD Test Guideline 107<br>GLP: yes<br>Remarks: Bioaccumulation is not expected. |

**Mobility in soil**

No data available

**Other adverse effects**

**Product:**

| | | |
|---|---|---|
| Ozone-Depletion Potential | : | Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances<br>Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). |

**Components:**

**Formic acid:**

| | | |
|---|---|---|
| Results of PBT and vPvB assessment | : | Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII. |

**Endocrine disrupting properties**

No data available



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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

| | | |
|---|---|---|
| Waste from residues | : | Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. |

## SECTION 14. TRANSPORT INFORMATION

### International Regulations

**IATA-DGR**

| | | |
|---|---|---|
| UN/ID No. | : | UN 1779 |
| Proper shipping name | : | Formic acid |
| Class | : | 8 |
| Subsidiary risk | : | 3 |
| Packing group | : | II |
| Labels | : | Class 8 - Corrosive substances, Class 3 - Flammable liquids |
| Packing instruction (cargo aircraft) | : | 855 |
| Packing instruction (passenger aircraft) | : | 851 |

**IMDG-Code**

| | | |
|---|---|---|
| UN number | : | UN 1779 |
| Proper shipping name | : | FORMIC ACID |
| Class | : | 8 |
| Subsidiary risk | : | 3 |
| Packing group | : | II |
| Labels | : | 8 (3) |
| EmS Code | : | F-E, S-C |
| Marine pollutant | : | no |

### Transport in bulk according to IMO instruments

Not applicable for product as supplied.

### National Regulations

**49 CFR**

| | | |
|---|---|---|
| UN/ID/NA number | : | UN 1779 |
| Proper shipping name | : | Formic acid |
| Class | : | 8 |
| Subsidiary risk | : | 3 |
| Packing group | : | II |
| Labels | : | Class 8 - Corrosive substances, Class 3 - Flammable liquids |



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| | | |
|---|---|---|
| ERG Code | : | 153 |
| Marine pollutant | : | no |
| Poison Inhalation Hazard | : | No |

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## SECTION 15. REGULATORY INFORMATION

**CERCLA Reportable Quantity**

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|---|---|---|---|
| Formic acid | 64-18-6 | 5000 | 5000 |

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Fire Hazard
Acute Health Hazard
Chronic Health Hazard

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

Formic acid 64-18-6 >= 90 - <= 100 %

**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

Formic acid 64-18-6 >= 90 - <= 100 %

**Clean Water Act**

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Formic acid 64-18-6 >= 90 - <= 100 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Formic acid 64-18-6 >= 90 - <= 100 %



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This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
This product does not contain any priority pollutants related to the U.S. Clean Water Act

**US State Regulations**

**Massachusetts Right To Know**

| | |
|---|---|
| Formic acid | 64-18-6 |

**Pennsylvania Right To Know**

| | |
|---|---|
| Formic acid | 64-18-6 |

**Maine Chemicals of High Concern**

Product does not contain any listed chemicals

**Vermont Chemicals of High Concern**

Product does not contain any listed chemicals

**Washington Chemicals of High Concern**

Product does not contain any listed chemicals

**The components of this product are reported in the following inventories:**

US TSCA : All substances listed as active on the TSCA inventory

**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

## SECTION 16. OTHER INFORMATION

**Full text of other abbreviations**

| | | |
|---|---|---|
| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
| NIOSH REL | : | USA. NIOSH Recommended Exposure Limits |
| OSHA P0 | : | USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values) |
| OSHA Z-1 | : | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| ACGIH / TWA | : | 8-hour, time-weighted average |
| NIOSH REL / TWA | : | Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| OSHA P0 / TWA | : | 8-hour time weighted average |
| OSHA Z-1 / TWA | : | 8-hour time weighted average |

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -



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Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.
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