

# SAFETY DATA SHEET

according to the OSHA  
Hazard Communication Standard

Version 8.15  
Revision Date 07/17/2026  
Print Date 07/18/2026

## SECTION 1. IDENTIFICATION

### 1.1 Product identifiers

Product name : Cadmium(II) acetate

Product Number : 755087  
Brand : Aldrich  
Index-No. : 048-001-00-5  
CAS-No. : 543-90-8

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

Identified uses : Laboratory chemicals, Synthesis of substances

Restrictions on use : The product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by MilliporeSigma.

### 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**

|                                                           |                             |
|-----------------------------------------------------------|-----------------------------|
| Acute toxicity (Oral)                                     | : Category 4                |
| Acute toxicity (Inhalation)                               | : Category 4                |
| Acute toxicity (Dermal)                                   | : Category 4                |
| Germ cell mutagenicity                                    | : Category 1B               |
| Carcinogenicity                                           | : Category 1B               |
| Specific target organ toxicity - repeated exposure (Oral) | : Category 1 (Kidney, Bone) |
| Short-term (acute) aquatic hazard                         | : Category 1                |
| Long-term (chronic) aquatic hazard                        | : Category 1                |

#### Other hazards

None known.

#### GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.  
H340 May cause genetic defects.  
H350 May cause cancer.  
H372 Causes damage to organs (Kidney, Bone) through prolonged or repeated exposure if swallowed.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust.  
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.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection.

**Response:**

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

**Storage:**

P405 Store locked up.

**Disposal:**

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

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

CAS-No. : 543-90-8

**Components**

| Chemical name   | CAS No./Unique ID | Concentration (% w/w) | Trade secret |
|-----------------|-------------------|-----------------------|--------------|
| Cadmium acetate | 543-90-8*         | >= 80 - <= 100        | TSC          |

\* Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

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### SECTION 4. FIRST AID MEASURES

General advice : Show this safety data sheet to the doctor in attendance.

If inhaled : After inhalation: fresh air. Immediately call in physician.  
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. Consult a physician.

|                                                             |                                                                                                                                        |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| In case of eye contact                                      | : After eye contact: rinse out with plenty of water.<br>Call in ophthalmologist.<br>Remove contact lenses.                             |
| If swallowed                                                | : After swallowing: immediately make victim drink water (two glasses at most).<br>Consult a physician.                                 |
| Most important symptoms and effects, both acute and delayed | : The most important known symptoms and effects are described in the labelling (see section 2 GHS label elements) and/or in section 11 |
| Protection of first-aiders                                  | : For personal protection see section 8.                                                                                               |
| Notes to physician                                          | : No data available                                                                                                                    |

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## SECTION 5. FIREFIGHTING MEASURES

|                                                |                                                                                                                                                                 |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media                   | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                                                       |
| Unsuitable extinguishing media                 | : For this substance/mixture no limitations of extinguishing agents are given.                                                                                  |
| Specific hazards during fire fighting          | : Not combustible.<br><br>Ambient fire may liberate hazardous vapours.                                                                                          |
| Hazardous combustion products                  | : Carbon oxides<br><br>Cadmium/cadmium oxides                                                                                                                   |
| Specific extinguishing methods                 | : No data available                                                                                                                                             |
| Further information                            | : 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. |

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

|                                                                     |                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | : Advice for non-emergency personnel:<br>Avoid generation and inhalation of dusts in all circumstances.<br>Avoid substance contact.<br>Ensure adequate ventilation.<br>Evacuate the danger area, observe emergency procedures, consult an expert.<br>Advice for emergency responders:<br>Wear appropriate personal protective equipment, as indicated in Section 8. |
| Environmental precautions                                           | : Do not let product enter drains.                                                                                                                                                                                                                                                                                                                                  |
| 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. Dispose of properly. Clean up affected area.<br>Avoid generation of dusts.                                                                                                                                             |

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## SECTION 7. HANDLING AND STORAGE

For precautions see section 2 GHS label elements

|                                           |                                                                                                                                                   |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Advice on safe handling                   | : Work under hood. Do not inhale substance/mixture.                                                                                               |
| Further information on storage conditions | : Tightly closed.<br>Dry.<br>Keep in a well-ventilated place.<br>Keep locked up or in an area accessible only to qualified or authorised persons. |
| Storage class                             | : 6.1C, Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects                                               |
| Recommended storage temperature           | : Recommended storage temperature see product label.                                                                                              |
| Packaging material                        | : Suitable material: LDPE Bottle/Jar                                                                                                              |

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

| Components      | CAS-No.  | Value type<br>(Form of exposure)       | Control parameters /<br>Permissible concentration | Basis        |
|-----------------|----------|----------------------------------------|---------------------------------------------------|--------------|
| Cadmium acetate | 543-90-8 | TWA                                    | 0.01 mg/m <sup>3</sup><br>(cadmium)               | ACGIH        |
|                 |          | TWA<br>(Respirable particulate matter) | 0.02 mg/m <sup>3</sup><br>(cadmium)               | ACGIH        |
|                 |          | PEL                                    | 0.005 mg/m <sup>3</sup><br>(cadmium)              | OSHA<br>CARC |

### Biological occupational exposure limits

| Components      | CAS-No.  | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis        |
|-----------------|----------|--------------------|---------------------|---------------|---------------------------|--------------|
| Cadmium acetate | 543-90-8 | cadmium (cadmium)  | In blood            | Not critical  | 5 µg/l                    | ACGIH<br>BEI |
|                 |          | cadmium (cadmium)  | Urine               | Not critical  | 5 µg/g creatinine         | ACGIH<br>BEI |

**Engineering measures** : No data available

### Personal protective equipment

Respiratory protection : required when dusts 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.

Recommended Filter type: : Filter type P3

The entrepreneur 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 : Nitrile rubber  
Break through time : 480 min  
Glove thickness : 0.11 mm  
Protective index : Full contact  
Manufacturer : KCL 741 Dermatril® L

Material : Nitrile rubber  
Break through time : 480 min  
Glove thickness : 0.11 mm  
Protective index : Splash contact  
Manufacturer : KCL 741 Dermatril® L

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](http://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).  
Safety glasses

Skin and body protection : protective clothing

Hygiene measures : Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : solid

Colour : No data available

Odour : No data available

Odour Threshold : No data available

pH : No data available

Melting point/ range : 491 - 523 °F / 255 - 273 °C

Boiling point/boiling range : No data available

Flash point : Not applicable

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|                                                     |                           |
|-----------------------------------------------------|---------------------------|
| Evaporation rate                                    | : No data available       |
| Flammability (solid, gas)                           | : No data available       |
| Flammability (liquids)                              | : No data available       |
| Burning rate                                        | : No data available       |
| Upper explosion limit /<br>Upper flammability limit | : No data available       |
| Lower explosion limit /<br>Lower flammability limit | : No data available       |
| Vapour pressure                                     | : No data available       |
| Relative vapour density                             | : No data available       |
| Relative density                                    | : No data available       |
| Density                                             | : 2.341 g/cm <sup>3</sup> |
| Solubility(ies)<br>Water solubility                 | : soluble                 |
| Partition coefficient: n-<br>octanol/water          | : No data available       |
| Autoignition temperature                            | : No data available       |
| Decomposition<br>temperature                        | : No data available       |
| Viscosity, dynamic                                  | : No data available       |
| Viscosity, kinematic                                | : No data available       |
| Flow time                                           | : No data available       |
| Explosive properties                                | : No data available       |
| Oxidizing properties                                | : none                    |
| Molecular weight                                    | : 230.50 g/mol            |
| Particle characteristics<br>Particle size           | : No data available       |

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## SECTION 10. STABILITY AND REACTIVITY

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada

**MILLIPORE  
SIGMA**

|                                    |                                                                                           |
|------------------------------------|-------------------------------------------------------------------------------------------|
| Reactivity                         | : No data available                                                                       |
| Chemical stability                 | : The product is chemically stable under standard ambient conditions (room temperature) . |
| Possibility of hazardous reactions | : Violent reactions possible with:<br>Strong oxidizing agents                             |
| Conditions to avoid                | : no information available                                                                |
| Incompatible materials             | : No data available                                                                       |
| Hazardous decomposition products   | : For Hazardous combustion products in the event of fire: see section 5                   |

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## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 333 mg/kg

Remarks: (RTECS)

Acute toxicity estimate Inhalation - 1.6 mg/l - dust/mist

(Expert judgement)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Acute toxicity estimate Dermal - 1,100.1 mg/kg

(Expert judgement)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

Remarks: The value is given in analogy to the following substances: Disodium pyrophosphate

#### Germ cell mutagenicity

May cause genetic defects.

Test Type: In vitro mammalian cell gene mutation test

Test system: Mouse lymphoma test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 490

Result: negative

Test Type: Micronucleus test

Test system: lymphocyte

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Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 487

Result: negative

#### **Carcinogenicity**

This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Chronic exposure to cadmium may cause lung and prostate cancer. Presumed to have carcinogenic potential for humans

IARC: 1 - Group 1: Carcinogenic to humans (Cadmium acetate)

NTP: Known - Known to be human carcinogenThe reference note has been added by TD based on the background information of the NTP. (Cadmium acetate)

OSHA: OSHA specifically regulated carcinogen (Cadmium acetate)

#### **Reproductive toxicity**

No data available

#### **Specific target organ toxicity - single exposure**

No data available

#### **Specific target organ toxicity - repeated exposure**

Oral - Causes damage to organs through prolonged or repeated exposure.

- Kidney, Bone

#### **Aspiration hazard**

No data available

### **11.2 Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 500 mg/kg

Remarks: Subchronic toxicity

Effects due to ingestion may include:, Nausea, Vomiting

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

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

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## **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

#### **Components:**

#### **Cadmium acetate:**

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.0013 mg/l  
End point: mortality  
Exposure time: 28 d  
Remarks: (referred to the cation)

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**Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**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.

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**SECTION 14. TRANSPORT INFORMATION****International Regulations****IATA-DGR**

UN/ID No. : UN 2570  
Proper shipping name : Cadmium compound  
(Cadmium acetate)  
Class : 6.1  
Packing group : III  
Labels : Division 6.1 - Toxic substances  
Packing instruction (cargo aircraft) : 677  
Packing instruction (passenger aircraft) : 670

**IMDG-Code**

UN number : UN 2570  
Proper shipping name : CADMIUM COMPOUND  
(Cadmium acetate)

Class : 6.1  
Packing group : III  
Labels : 6.1  
EmS Code : F-A, S-A  
Marine pollutant : yes

### Transport in bulk according to IMO instruments

Not applicable for product as supplied.

### National Regulations

#### 49 CFR

UN/ID/NA number : UN 2570  
Proper shipping name : Cadmium compounds  
(Cadmium acetate)  
Class : 6.1  
Packing group : III  
Labels : Division 6.1 - Toxic substances  
ERG Code : 154  
Marine pollutant : yes  
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) |
|-----------------|----------|--------------------|-----------------------------|
| Cadmium acetate | 543-90-8 | 10                 | 10                          |

### 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** : Acute Health Hazard  
Chronic Health Hazard

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

|                 |          |                  |
|-----------------|----------|------------------|
| Cadmium acetate | 543-90-8 | >= 90 - <= 100 % |
|-----------------|----------|------------------|

## US State Regulations

### Massachusetts Right To Know

Cadmium acetate 543-90-8

### Pennsylvania Right To Know

Cadmium acetate 543-90-8

### Maine Chemicals of High Concern

Product does not contain any listed chemicals

### Vermont Chemicals of High Concern

Cadmium acetate 543-90-8

### Washington Chemicals of High Concern

Cadmium acetate 543-90-8

### California Prop. 65

WARNING: This product can expose you to chemicals including Cadmium acetate, which is/are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). **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.

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## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)  
OSHA CARC : OSHA Specifically Regulated Chemicals/Carcinogens  
ACGIH / TWA : 8-hour, time-weighted average  
OSHA CARC / PEL : Permissible exposure limit (PEL)

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 - 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](http://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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