

## Chemical Safety Data Sheet MSDS / SDS

## Acetamide SDS

Revision Date:2024-04-25 Revision Number:1

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

Product name: Acetamide  
CAS: 60-35-5

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses: For R&D use only. Not for medicinal, household or other use.  
Uses advised against: none

**Company Identification**

Company: Chemicalbook.in  
Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090  
Telephone: +91 9550333722

**SECTION 2: Hazards identification****Classification of the substance or mixture**

Carcinogenicity, Category 2

## GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Warning

### Hazard statement(s)

H351 Suspected of causing cancer

### Precautionary statement(s)

### Prevention

P203 Obtain, read and follow all safety instructions before use.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

### Response

P318 IF exposed or concerned, get medical advice.

### Storage

P405 Store locked up.

### Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### Other hazards which do not result in classification

no data available

## SECTION 3: Composition/information on ingredients

### Substance

Chemical name: Acetamide

Common names and synonyms: Acetamide

CAS number: 60-35-5  
EC number: 200-473-5  
Concentration: 100%

#### **SECTION 4: First aid measures**

##### **Description of necessary first-aid measures**

###### **If inhaled**

Fresh air, rest.

###### **Following skin contact**

Remove contaminated clothes. Rinse skin with plenty of water or shower.

###### **Following eye contact**

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

###### **Following ingestion**

Rinse mouth. Refer for medical attention .

##### **Most important symptoms/effects, acute and delayed**

SYMPTOMS: Exposure to this compound may cause irritation to the eyes, skin and mucous membranes. ACUTE/CHRONIC HAZARDS: This chemical may cause skin and eye irritation and corneal damage. (NTP, 1992)

##### **Indication of immediate medical attention and special treatment needed, if necessary**

If this chemical gets into the eyes, remove any contact lenses at once and irrigate immediately for at least 15 min, occasionally lifting upper and lower lids. If this chemical contacts the skin, remove contaminated clothing and wash immediately with soap and water. When this chemical has been swallowed, get medical attention. ... If this chemical has been inhaled, remove from exposure and transfer promptly to a medical facility.

#### **SECTION 5: Firefighting measures**

##### **Suitable extinguishing media**

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

#### **Specific hazards arising from the chemical**

The flash point of this chemical has not been determined, but it is probably combustible. (NTP, 1992)

#### **Special protective actions for fire-fighters**

Use water spray, powder.

### **SECTION 6: Accidental release measures**

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

Personal protection: P2 filter respirator for harmful particles. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

#### **Environmental precautions**

Personal protection: P2 filter respirator for harmful particles. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

#### **Methods and materials for containment and cleaning up**

ACCIDENTAL RELEASE MEASURES: Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **SECTION 7: Handling and storage**

#### **Precautions for safe handling**

NO open flames. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

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

Dry. Well closed. Keep container tightly closed in a dry and well-ventilated place. Moisture sensitive.

## SECTION 8: Exposure controls/personal protection

### Control parameters

### Occupational Exposure limit values

MAK: carcinogen category: 3B. TLV: 1 ppm as TWA; A3 (confirmed animal carcinogen with unknown relevance to humans)

### Biological limit values

no data available

### Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

Wear safety spectacles.

#### Skin protection

Protective gloves. Protective clothing.

#### Respiratory protection

Use local exhaust or breathing protection.

#### Thermal hazards

no data available

## SECTION 9: Physical and chemical properties and safety characteristics

Physical state: Solid. Crystalline.

Colour: Colourless.

Odour:	Odorless when pure, but frequently has a mousy odor
Melting point/freezing point:	80.16 °C. Atm. press.:1 013 hPa.
Boiling point or initial boiling point and boiling range:	222 °C. Atm. press.:1 013 hPa.
Flammability:	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit:	no data available
Flash point:	43°C(lit.)
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available
pH:	no data available
Kinematic viscosity:	2.182 centipose (91.1 deg C); 1.461 centipose (111.8 deg C); 1.056 centipose (131.7 deg C)
Solubility:	Very soluble (greater than or equal to 100 mg/mL at 72° F) (NTP, 1992)
Partition coefficient n-octanol/water:	log Pow = < 0.3. Temperature:25 °C.
Vapour pressure:	1.61 Pa. Temperature:20 °C.;2.42 Pa. Temperature:25 °C.
Density and/or relative density:	1.159 g/cm <sup>3</sup> . Temperature:20 °C.
Relative vapour density:	no data available
Particle characteristics:	no data available

## SECTION 10: Stability and reactivity

### Reactivity

Decomposes on burning. This produces toxic fumes including nitrogen oxides. Reacts with acids and strong oxidants.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

This substance is a combustible solid. ACETAMIDE may react with azo and diazo compounds to generate toxic gases. May form flammable gases with strong reducing agents. Reacts as a weak bases (weaker than water). Mixing with dehydrating agents such as P<sub>2</sub>O<sub>5</sub> or SOCl<sub>2</sub> generates acetonitrile Burns to give toxic mixed oxides of nitrogen (NO<sub>x</sub>).

### Conditions to avoid

no data available

### Incompatible materials

Incompatible materials: Strong oxidizing agents, strong acids, strong bases, strong reducing agents.

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - Carbon oxides, nitrogen oxides (NO<sub>x</sub>).

## SECTION 11: Toxicological information

### Acute toxicity

Oral: LD<sub>50</sub> - rat (male) - 12.9 g/kg.

Inhalation: no data available

Dermal: no data available

### Skin corrosion/irritation

no data available

**Serious eye damage/irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

Cancer classification: Group C - possible human carcinogen.

**Reproductive toxicity**

No information is available on the reproductive or developmental effects of acetamide in humans. Animal studies have not reported any significant developmental effects from exposure to acetamide.

**STOT-single exposure**

The substance is irritating to the eyes and skin.

**STOT-repeated exposure**

This substance is possibly carcinogenic to humans.

**Aspiration hazard**

Evaporation at 20°C is negligible; a nuisance-causing concentration of airborne particles can, however, be reached quickly when dispersed, especially if powdered.

**SECTION 12: Ecological information****Toxicity**

Toxicity to fish: no data available



Toxicity to daphnia and other aquatic invertebrates: LC50 - Daphnia magna - > 10 000 mg/L - 24 h.

Toxicity to algae: toxicity threshold - Scenedesmus quadricauda - > 10 000 mg/L - 8 d.

Toxicity to microorganisms: no data available

#### **Persistence and degradability**

AEROBIC: Using OECD Guideline 301D (Ready Biodegradability: Closed Bottle Test) and a domestic sewage inoculum, acetamide at an initial concentration of 6.08 mg/L reached 69% of theoretical degradation in a 10-day window which classified the compound as readily biodegradable(1). Acetamide, present at 100 mg/L, reached 69% of its theoretical BOD in 3 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test which classified the compound as readily biodegradable(2). In screening tests in which acetamide was incubated with activated sludge from 3 sewage treatment plants, 29.6-45.7% of theoretical BOD was utilized in 24 hr(3). A study reported acetamide to be easily biodegraded in a screening test using a sewage inoculum with 44% of theoretical BOD utilized in 3 days including a 10 hr lag period(4).

#### **Bioaccumulative potential**

An estimated BCF of 3 was calculated in fish for acetamide(SRC), using a log Kow of -1.26(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

#### **Mobility in soil**

An experimental Koc of 5 has been reported for acetamide(1). According to a classification scheme(2), this Koc value suggests that acetamide is expected to have very high mobility in soil.

#### **Other adverse effects**

no data available

## **SECTION 13: Disposal considerations**

#### **Disposal methods**

#### **Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### **Contaminated packaging**

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be

punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

## SECTION 14: Transport information

### UN Number

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

### UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

### Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

### Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

### Environmental hazards

ADR/RID: Yes

IMDG: Yes

IATA: Yes

### Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

### **SECTION 15: Regulatory information**

**Safety, health and environmental regulations specific for the product in question**

**European Inventory of Existing Commercial Chemical Substances (EINECS)**

Listed.

**EC Inventory**

Listed.

**United States Toxic Substances Control Act (TSCA) Inventory**

Listed.

**China Catalog of Hazardous chemicals 2015**

Not Listed.

**New Zealand Inventory of Chemicals (NZIoC)**

Listed.

**(PICCS)**

Listed.

**Vietnam National Chemical Inventory**

Listed.

**IECSC)**

Listed.

**Korea Existing Chemicals List (KECL)**

Listed.

## SECTION 16: Other information

### Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

### References

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:  
[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:  
<http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any

