SDS

永华化学股份有限公司
YONGHUA CHEMICAL CO., LTD.

N,N-Dimethylacetamide

1. Product Identification

Synonyms: Dimethylacetamide; N,N-Dimethylacetamide; Acetic acid dimethylamide; Dimethylamide acetate; DMAC; Acetdimethylamide; Dimethylacetone amide; DMA; Acetyl dimethylamide

CAS No.: 127-19-5

Manufacturer/supplier:

Yonghua Chemical Co., Ltd.
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2. Composition/Information on Ingredients

CAS No.	Chemical Name	Content	EINECS#
127-19-5	N,N-Dimethylacetamide	≤100	204-826-4

Hazard Symbols: T

Risk Phrases: 20/21 61

3. Hazards Identification

EMERGENCY OVERVIEW

Harmful by inhalation and in contact with skin. May cause harm to the unborn child.Hygroscopic (absorbs moisture from the air).

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation. May be absorbed through the skin. If absorbed, causes symptoms similar to those of ingestion. Not expected to cause an allergic skin reaction.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver damage. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages

may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation:

Causes respiratory tract irritation. May cause effects similar to those described for ingestion. Inhalation at high concentrations may cause CNS depression and asphixiation.

Chronic:

Chronic ingestion may cause liver damage. May cause reproductive and fetal effects.

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4. First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin:

In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

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5. Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated. Combustible liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Extinguishing Media:

Use foam, dry chemical, or carbon dioxide.

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6. Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

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7. Handling and Storage

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Discard contaminated shoes. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Keep away from heat and flame. Avoid breathing vapor or mist. Destroy contaminated leather clothing.

Storage:

Keep away from sources of ignition. Do not store in direct sunlight.

Store in a tightly closed container. Keep under a nitrogen blanket.

Store in a cool, dry, well-ventilated area away from incompatible substances.

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8. Exposure Controls/Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits CAS# 127-19-5: United Kingdom, WEL - TWA: 10 ppm TWA; 36 mg/m3 TWA United Kingdom, WEL - STEL: 20 ppm STEL; 72 mg/m3 STEL United States OSHA: 10 ppm TWA; 35 mg/m3 TWA Belgium - TWA: 10 ppm VLE; 36 mg/m3 VLE Belgium - STEL: 20 ppm VLE; 72 mg/m3 VLE France - VME: 10 ppm VME; 35 mg/m3 VME Germany: 10 ppm TWA; 36 mg/m3 TWA Germany: Skin absorber Japan: 10 ppm OEL; 36 mg/m3 OEL Malaysia: 10 ppm TWA; 36 mg/m3 TWA Netherlands: 20 ppm STEL; 72 mg/m3 STEL Netherlands: 10 ppm MAC; 36 mg/m3 MAC Spain: 10 ppm VLA-ED; 36 mg/m3 VLA-ED Spain: 20 ppm VLA-EC; 72 mg/m3 VLA-EC Personal Protective Equipment Eyes: Wear chemical splash goggles.

Skin:

Wear butyl rubber gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

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9. Physical and Chemical Properties

Physical State: Liquid

Color: colorless

Odor: ammonia-like

pH: Not available.

Vapor Pressure: 1.5 mm Hg @ 20 deg C

Viscosity: 1.02 mPa s 20 C

Boiling Point: 165 deg C

Freezing/Melting Point: -20 deg C

Autoignition Temperature: 335 deg C (635.00 deg F)

Flash Point: 63 deg C (145.40 deg F)

Explosion Limits, lower: 1.8 @ 100 C

Explosion Limits, upper: 11.5 @ 160 C

Decomposition Temperature: > 350 deg C

Solubility in water: Soluble.

Specific Gravity/Density: 0.94 @ 20 C

Molecular Formula: C4H9NO

Molecular Weight: 87.12

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10. Stability and Reactivity

Chemical Stability:

Hygroscopic: absorbs moisture or water from the air.

Conditions to Avoid:

Ignition sources, excess heat.

Incompatibilities with Other Materials:

Strong oxidizing agents, strong acids, ammonia, phenols, isocyanates, cresol, nonoxidizing mineral acids.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, carbon dioxide, acetic acid, dimethylamine.

Hazardous Polymerization: Will not occur.

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11. Toxicological InformationRTECS#:

CAS# 127-19-5: AB7700000 LD50/LC50:

CAS# 127-19-5: Draize test, rabbit, eye: 100 mg Mild; Inhalation, mouse: LC50 = 7200 mg/m3; Inhalation, rat: LC50 = 2475 ppm/1H; Oral, mouse: LD50 = 4620 mg/kg; Oral, rat: LD50 = 4300 mg/kg; Skin, rabbit: LD50 = 2240 mg/kg; Skin, rat: LD50 = >2 gm/kg.

Inhalation 1 hour, LC50, female rat: 8.81 mg/L (data from DuPont).

Carcinogenicity:

N,N-Dimethylacetamide - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

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12. Ecological Information

Ecotoxicity:

Fish: Fathead Minnow: 1500 mg/L; 96hr LC50; Flow-through

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13. Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

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14. Transport Information

IATA

Not regulated as a hazardous material.

IMO

Not regulated as a hazardous material.

RID/ADR

Not regulated as a hazardous material.

15.Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T

Risk Phrases:

R 20/21 Harmful by inhalation and in contact with skin.

R 61 May cause harm to the unborn child.

Safety Phrases:

S 53 Avoid exposure - obtain special instructions before use.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 127-19-5: 1

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

None of the chemicals in this product are listed on the DSL/NDSL list.

CAS# 127-19-5 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 127-19-5: OEL-AUSTRALIA:TWA 10 ppm (35 mg/m3);Skin

OEL-BELGIUM:TWA 10 ppm (36 mg/m3);Skin

OEL-DENMARK:TWA 10 ppm (35 mg/m3);Skin

OEL-FINLAND:TWA 10 ppm (35 mg/m3);STEL 20 ppm (70 mg/m3);Skin

OEL-FRANCE:TWA 10 ppm (35 mg/m3);Skin

OEL-GERMANY:TWA 10 ppm (35 mg/m3);Skin

OEL-THE NETHERLANDS:TWA 10 ppm (35 mg/m3);Skin

OEL-THE PHILIPPINES:TWA 10 ppm (35 mg/m3);Skin

OEL-SWITZERLAND:TWA 10 ppm (35 mg/m3);STEL 20 ppm ;Skin

OEL-UNITED KINGDOM:TWA 10 ppm (35 mg/m3);STEL 15 ppm ;Skin

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

US FEDERAL

TSCA

CAS# 127-19-5 is not listed on the TSCA inventory.

It is for research and development use only.

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16. Other Information

Yonghua Chemical Co., Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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