

**MATERIAL SAFETY DATA SHEET****Product Name:** N,N-Dimethylacetamide**CAS No.:** 127-19-5**Version:** 0**1. Identification**

**Product Code** : 90713, 90032, 90190  
**Company Name** : Advent Chembio Private Limited  
**Address** : W-288, MIDC, TTC INDUSTRIAL AREA, THANE-BELAPUR ROAD, RABALE, NAVI MUMBAI - 400 701.  
**E-mail** : [info@adventchembio.com](mailto:info@adventchembio.com)  
**WEBSITE** : [www.adventchembio.com](http://www.adventchembio.com)  
**Company Phone Number** : 022-27690837

**2. Composition/Information on Ingredients**

<b>Ingredient</b>	<b>CAS No</b>	<b>Percent</b>
N,N-DIMETHYLACETAMIDE	127-19-5	99- 100%

**3. Hazards Identification****Hazard classification****Physical hazards**

Flammable liquids : Category 4

**Health hazards**

Acute toxicity (Inhalation - vapor) : Category 3

Serious eye damage/eye irritation : Category 2

Toxic to reproduction : Category 1

Specific target organ toxicity - single exposure : Category 3

Specific target organ toxicity – repeated exposure (Inhalation) : Category 2

**Labels elements****Hazard symbol****Signal word** : Danger**Hazard statement** : Combustible liquid.  
Toxic if inhaled.  
Causes serious eye irritation.  
May cause drowsiness or dizziness.  
May damage fertility or the unborn child.  
May cause damage to organs through prolonged or repeated exposure.**Precautionary statement**

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- Prevention** : Keep away from heat/sparks/open flames/hot surfaces. No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling.
- Response** : In case of fire: Use water spray, foam, dry powder or carbon dioxide for extinction. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Specific treatment.
- Storage** : Store in a well-ventilated place. Keep cool. Store locked up.
- Disposal** : 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 GHS classification** : None.

**4. First Aid Measures**

- General information** : Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Drink a few glasses of water or milk. Call a POISON CENTER or doctor/physician if you feel unwell.
- Inhalation** : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
- Skin contact** : Wash skin thoroughly with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
- Eye contact** : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- Most important symptoms/effects, acute and delayed** : May cause irritation to skin, eyes, and respiratory tract. Narcotic effect. May cause reproductive effects.
- Indication of immediate medical attention and special treatment needed** : Symptoms may be delayed. Treat symptomatically.

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**5. Fire fighting measures**

- General fire hazards** : Flammable liquid and vapor.
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : Water spray, foam, dry powder or carbon dioxide.
- Unsuitable extinguishing media** : Avoid water in straight hose stream; will scatter and spread fire.
- Specific hazards arising from the chemical** : Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Heat may cause the containers to explode .
- Special protective equipment and precautions for firefighters**
- Special fire fighting procedures** : Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.
- Special protective equipment for fire-fighters** : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6. Accidental Release Measures**

- Personal precautions, protective equipment and emergency procedures** : Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ventilate closed spaces before entering them. Avoid inhalation of vapors and spray mists. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Methods and material for containment and cleaning up** : Eliminate all ignition sources if safe to do so. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal .
- Notification Procedures** : Inform authorities if large amounts are involved.
- Environmental precautions** : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

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## 7. Handling and Storage

- Precautions for safe handling** : Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Do not get in eyes, on skin, on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Wash hands thoroughly after handling. Ground/bond container and receiving equipment. Use explosion-proof ventilation equipment. Take precautionary measures against static discharges when there is a risk of dust explosion .
- Conditions for safe storage, including any incompatibilities** : Store in a cool and well-ventilated place. Store in a dry place. Store locked up. Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

## 8. Exposure Controls Personal Protection

### Control parameters

### Occupational exposure limits

Chemical identity	Type	Exposure Limit values	Source
DIMETHYL ACETAMIDE	TWA	10 ppm	US. ACGIH Threshold Limit Values (2011)
	REL	10ppm 35 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	10ppm 35 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	10ppm 35 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TAW	10ppm 35 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	AN ESL	36 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (12 2010)
	ST ESL	360 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (12 2010)
	ST ESL	100 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (12 2010)

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	AN ESL	10 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (12 2010)
	TWA PEL	10ppm 35 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)

**Appropriate engineering controls** : No data available.

**Individual protection measures, such as personal protective equipment**

- General information** : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.
- Eye/face protection** : Wear safety glasses with side shields (or goggles).
- Hand protection** : Chemical resistant gloves .
- Other** : Wear suitable protective clothing.
- Respiratory protection** : In case of inadequate ventilation use suitable respirator. Air-purifying respirator with a high efficiency particulate filter.
- Hygiene measures** : Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. Take off contaminated clothing and wash before reuse.

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<b>Appearance</b>	:	Colorless liquid .
<b>Odor</b>	:	Amine odor .
<b>pH</b>	:	No data available.
<b>Melting point/freezing point</b>	:	-18.59 °C
<b>Initial boiling point and boiling range</b>	:	163 °C
<b>Flash Point</b>	:	70 °C (Open Cup)
<b>Vapor pressure</b>	:	0.30 kPa (25 °C)
<b>Vapor density</b>	:	3.01 AIR=1
<b>Relative density</b>	:	0.94 (25 °C)
<b>Solubility in water</b>	:	Miscible with water.
<b>Solubility (other)</b>	:	No data available.
<b>Formula</b>	:	C <sub>4</sub> H <sub>9</sub> NO
<b>Molecular Weight</b>	:	87.12

**10. Stability and reactivity**

<b>Reactivity</b>	:	No dangerous reaction known under conditions of normal use.
<b>Chemical stability</b>	:	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	:	Hazardous polymerization does not occur
<b>Conditions to avoid</b>	:	Heat, sparks, flames. Contact with incompatible materials.
<b>Incompatible materials</b>	:	Strong oxidizing agents. Halogenated materials. May attack some plastics, rubber and coatings.
<b>Hazardous decomposition products</b>	:	Oxides of Carbon. Nitrogen Oxides ammonia.

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**11. Toxicological Information****Information on likely routes of exposure**

- Ingestion** : May be harmful if swallowed.  
**Inhalation** : Toxic if inhaled.  
**Skin contact** : May be harmful in contact with skin.  
**Eye contact** : Causes serious eye irritation.

**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)**

- Oral Product** : LD 50 (Rat): 4,390 mg/kg  
LD 50 (Mouse): 4,620 mg/kg .  
**Dermal Product** : LD 50 (Rabbit): 2,240 mg/kg  
LD 50 (Mouse): 9,600 mg/kg .  
**Inhalation Product** : LC 50 (Rat, 1 h): 2,475 mg/l .
- Repeated dose toxicity Product** : No data available.  
**Skin corrosion/irritation Product** : No data available.  
**Serious eye damage/eye irritation Product** : Causes serious eye irritation.  
**Respiratory or skin sensitization Product** : No data available.  
**Carcinogenicity Product** : No data available.  
**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE** : No carcinogenic components identified.  
**US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE** : No carcinogenic components identified.  
**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050** : No carcinogenic components identified.  
**Germ cell mutagenicity In vitro Product** : No data available.  
**In vivo Product** : No data available. .  
**Reproductive toxicity Product** : May damage fertility or the unborn child.  
**Specific target organ toxicity - single exposure Product** : Narcotic effect.  
**Specific target organ toxicity - repeated exposure Product** : Inhalation - vapor: Liver.  
**Aspiration hazard Product** : Not classified.  
**Other effects** : No data available.

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- Fish Product** : No data available.  
**Specified substance(s): DIMETHYL ACETAMIDE** LC 50 (Medaka, high-eyes (*Oryzias latipes*), 48 h): 1,000 mg/l Mortality.  
**Aquatic invertebrates Product** : No data available.

**Chronic hazards to the aquatic environment :**

- Fish Product** : No data available.  
**Aquatic invertebrates Product** : No data available.  
**Toxicity to Aquatic Plants Product:** : No data available.  
**Persistence and degradability**  
**Biodegradation Product** : There are no data on the degradability of this product.  
**BOD/COD ratio Product** : No data available.  
**Bioaccumulative potential**  
**Bioconcentration factor (BCF) Product** : No data available on bioaccumulation.  
**Partition coefficient n-octanol / water (log Kow) Product** : Log Kow: -0.77  
**Mobility in soil** : The product is water soluble and may spread in water systems .  
**Other adverse effects** : The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**13. Disposal consideration**

- Disposal instructions** : 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 .  
**Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied.



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**14. Transport Information**

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
<b>DOT</b>			Not Regulated		
<b>IMDG</b>			Not Regulated		
<b>IATA</b>			Not Regulated		

**15. Regulatory Information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture  
No Data Available.

**16. Other Information**

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

**Issue Date :01/08/2014**

**Version :0**

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