

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

SECTION 1. IDENTIFICATION

Product name : Dimethyl Acetamide

Number : 000000011356

Product Use Description : Solvent

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH
Wunstorfer Straße 40
Seelze, 30926

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid, clear

Color : colourless

Odor : weak ammoniacal

Classification of the substance or mixture

Classification of the substance or mixture : **Flammable liquids, Category 4**
Acute toxicity, Category 4, Inhalation
Eye irritation, Category 2A
Carcinogenicity, Category 2
Reproductive toxicity, Category 1B

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

GHS Label elements, including precautionary statements

Symbol(s)

:



Signal word

: **Danger**

Hazard statements

: **Combustible liquid.**
Causes serious eye irritation.
Harmful if inhaled.
Suspected of causing cancer.
May damage fertility or the unborn child.

Precautionary statements

: **Prevention:**

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal:

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

Dimethyl Acetamide**071-4**

Version 3.0

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II**Carcinogenicity**

IARC: N,N-Dimethylacetamide 127-19-5
Group 2B: Possibly carcinogenic to humans

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : DMAC, N,N-Dimethylacetamide

Formula : C₄H₉NO

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
N,N-Dimethylacetamide	127-19-5	100.00 %

SECTION 4. FIRST AID MEASURES

General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician.

Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician if irritation develops or persists.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation develops or persists.

Ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician.

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

Notes to physician

Most important symptoms/effects, acute and delayed : No information available.

Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO₂)
Dry chemical
Foam

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Combustible.
Vapours may form explosive mixtures with air.
Vapours are heavier than air and may spread along floors.
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.
In case of fire hazardous decomposition products may be produced such as:
Ammonia
Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Wear personal protective equipment.
Immediately evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

	Ensure adequate ventilation. Remove all sources of ignition. Do not swallow. Avoid breathing vapours, mist or gas. Avoid contact with skin, eyes and clothing.
Environmental precautions	: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Discharge into the environment must be avoided. Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water courses.
Methods and materials for containment and cleaning up	: Ventilate the area. No sparking tools should be used. Use explosion-proof equipment. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Additional advice	: Suppress (knock down) gases/vapours/mists with a water spray jet.

SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe handling	: Wear personal protective equipment. Use only in well-ventilated areas. Keep container tightly closed. Do not smoke. Do not swallow. Avoid breathing vapours, mist or gas. Avoid contact with skin, eyes and clothing.
Advice on protection against fire and explosion	: Keep away from fire, sparks and heated surfaces. Take precautionary measures against static discharges. Ensure all equipment is electrically grounded before beginning transfer operations. Use explosion-proof equipment. Keep product and empty container away from heat and sources of ignition. No sparking tools should be used. No smoking.

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

Storage

Conditions for safe storage, including any incompatibilities : Store in area designed for storage of flammable liquids. Protect from physical damage.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep away from heat and sources of ignition.
Keep away from direct sunlight.
Store away from incompatible substances.
Container hazardous when empty.
Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Further information on storage conditions : Keep containers tightly closed in a cool, well-ventilated place.
Containers should be protected against falling down.
Avoid product residues in/on containers.
Do not leave vessels/containers open
Store in a place accessible by authorized persons only.
Keep under nitrogen.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.

Engineering measures : Use with local exhaust ventilation.
Prevent vapour buildup by providing adequate ventilation during and after use.

Eye protection : Do not wear contact lenses.
Wear as appropriate:
Safety glasses with side-shields
If splashes are likely to occur, wear:
Goggles or face shield, giving complete protection to eyes

Hand protection : Solvent-resistant gloves
Gloves must be inspected prior to use.
Replace when worn.

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

- Skin and body protection : Wear as appropriate:
Solvent-resistant apron
Flame retardant antistatic protective clothing.
If splashes are likely to occur, wear:
Protective suit
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
For rescue and maintenance work in storage tanks use self-contained breathing apparatus.
Use NIOSH approved respiratory protection.
- Hygiene measures : When using, do not eat, drink or smoke.
Wash hands before breaks and immediately after handling the product.
Keep working clothes separately.
Remove and wash contaminated clothing before re-use.
Do not swallow.
Avoid breathing vapours, mist or gas.
Avoid contact with skin, eyes and clothing.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
N,N-Dimethylacetamide	127-19-5	SKIN_DES : Skin designation:	Danger of cutaneous absorption	01 2020	ACGIH:US. ACGIH Threshold Limit Values, as amended
N,N-Dimethylacetamide	127-19-5	TWA : Time weighted average	(10 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended
N,N-Dimethylacetamide	127-19-5	SKIN_DES : Skin designation:	Can be absorbed through the skin.	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended

SAFETY DATA SHEET

Dimethyl Acetamide

071-4

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

N,N-Dimethylacetamide	127-19-5	REL : Recomm ended exposure limit (REL):	35 mg/m3 (10 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
N,N-Dimethylacetamide	127-19-5	PEL : Permissi ble exposure limit	35 mg/m3 (10 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
N,N-Dimethylacetamide	127-19-5	SKIN_DE S : Skin designati on:	Can be absorbed through the skin.	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
N,N-Dimethylacetamide	127-19-5	SKIN_FI NAL : Skin designati on (Final Rule Limit applies):	Can be absorbed through the skin.	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
N,N-Dimethylacetamide	127-19-5	TWA : Time weighted average	35 mg/m3 (10 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid, clear

Color : colourless

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

Odor	: weak ammoniacal
Odor threshold	: Note: No data available
pH	: Note: Not applicable
Freezing point	: -20 °C
Boiling point/boiling range	: 166 °C
Flash point	: 158 °F (70 °C) Method: open cup
Evaporation rate	: Note: No data available
Lower explosion limit	: 1.8 %(V)
Upper explosion limit	: 11.5 %(V) at 99 °C
Vapor pressure	: 2.0 hPa at 20 °C(68 °F)
Vapor density	: 3.0
Density	: 0.942 g/cm ³ at 20 °C 0.937 g/cm ³ at 25 °C
Water solubility	: Note: soluble
Partition coefficient: n-octanol/water	: log Pow: -0.77
Ignition temperature	: 490 °C

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

Molecular weight : 87.12 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Hazardous polymerisation does not occur.
Spray mist may be flammable at temperatures below the flash point.

Conditions to avoid : Heat, flames and sparks.
Keep away from direct sunlight.

Incompatible materials : Oxidizing agents
Acids
Halogenated solvents in the presence of iron
Plastic materials can be attacked.

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:
Ammonia
Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50: ca. 5,830 mg/kg
Species: Rat

Acute inhalation toxicity : LC50: 8.8 mg/l , vapour
Exposure time: 1 h
Species: Rat

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

Acute dermal toxicity	: LD50: 2,100 mg/kg Species: Rabbit
Skin irritation	: Species: Rabbit Result: slight irritation Exposure time: 24 h
Eye irritation	: Species: Rabbit Result: Moderate eye irritation
Sensitisation	: Species: Guinea pig Result: Did not cause sensitisation on laboratory animals.
Repeated dose toxicity	: Species: Rat Application Route: Oral Exposure time: 24 Months NOAEL (No observed adverse effect level): 300 mg/kg/d Note: Spleen
	: Species: Rat Application Route: Inhalation Exposure time: 2 Years NOEL: 25 ppm Note: Liver damage Kidney damage
	: Species: Mouse Application Route: Inhalation Exposure time: 2 Years NOEL: 25 ppm Note: Liver damage
	: Species: Rat Application Route: Inhalation Exposure time: 6 Months Note: Respiratory irritation
	: Species: Dog Application Route: Dermal Exposure time: 6 Weeks NOEL: 299 mg/kg

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

	Note: Liver damage
Genotoxicity in vitro	: Note: In vitro tests did not show mutagenic effects
Genotoxicity in vivo	: Note: In vivo tests did not show mutagenic effects
Carcinogenicity N,N-Dimethylacetamide	:
Reproductive toxicity	: Species: Rat Method: Animal testing did not show any effects on fertility.
Teratogenicity	: Species: Rat Application Route: Oral Dose: NOEL – 65 mg/kg Method: Exposure by pregnant animals resulted in maternal and foetal toxicity.
Further information	: Note: Suspected of causing cancer.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish	: flow-through test LC50: $\geq 1,500$ mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow)
	: LC50: 13,300 mg/l Exposure time: 96 h Species: Gambusia affinis (Mosquito fish)
	: static test LC50: > 500 mg/l Exposure time: 96 h Species: Leuciscus idus (Golden orfe) Method: DIN 38412

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

Toxicity to daphnia and other aquatic invertebrates : static test
EC50: > 500 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Toxicity to algae : EC50: > 500 mg/l
Exposure time: 72 h
Species: Desmodesmus subspicatus (green algae)

Elimination information (persistence and degradability)

Biodegradability : aerobic
Result: Inherently biodegradable.
Value: 96 %
Note: Exposure Time: 5d

Further information on ecology

Additional ecological information : Accumulation in aquatic organisms is unlikely.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT UN/ID No. : NA 1993
Proper shipping name : Combustible liquid, n.o.s.
(N,N-Dimethylacetamide)
Class CBL
Packing group III
Hazard Labels NONE
Required only for US-DOT Bulk Shipments

TDG Not dangerous goods

IATA Not dangerous goods

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

IMDG Not dangerous goods**SECTION 15. REGULATORY INFORMATION****Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC) : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

National regulatory information**SARA 302 Components** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

SARA 313 Components	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.	
SARA 311/312 Hazards	:	Fire Hazard Acute Health Hazard Chronic Health Hazard	
California Prop. 65	:	 WARNING: This product can expose you to chemicals, listed below, known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov .	
		N,N-Dimethylacetamide	127-19-5
Massachusetts RTK	:	N,N-Dimethylacetamide	127-19-5
New Jersey RTK	:	N,N-Dimethylacetamide	127-19-5
Pennsylvania RTK	:	N,N-Dimethylacetamide	127-19-5

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 2*	2
Flammability	: 2	2
Physical Hazard	: 0	
Instability	:	0

* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of

Dimethyl Acetamide**071-4**

Version 3.0

Revision Date 10/01/2020

Print Date 05/29/2023

the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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