

# Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

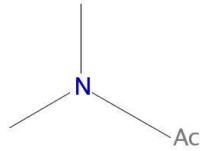
## DIMETHYLACETILAMIDE (DMAC)

Version: 1.0  
Form No: 193241

Preparation Date : 11/11/2013  
Revision Date: 11/11/2013

### 1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product Identifier

<b>Product Name</b>	<b>DIMETHYLACETILAMIDE (DMAC)</b>
<b>SDS<sup>1</sup> No</b>	193241
<b>CAS<sup>2</sup> No</b>	127-19-5
<b>EINECS<sup>3</sup> No</b>	204-826-4
<b>Chemical Name</b>	N,N-dimethylacetamide
<b>Chemical Formula</b>	C <sub>4</sub> H <sub>9</sub> NO
<b>Structural Formula</b>	

#### 1.2 Relevant Identified Uses Of The Product And Uses Advised Against

<b>Relevant Identified Uses</b>	<ul style="list-style-type: none"> <li>· Plastic, resin, gum and solvents for electrolytes.</li> <li>· Catalyst, paint remover, high purity solvent for crystallization and refining processes.</li> <li>· Polymer solvent in production of acrylic fiber.</li> </ul>
<b>Uses Advised Against</b>	See chapter 16 for a general overview

#### 1.3 Details Of The Supplier Of The Safety Data Sheet

<b>Supplier (Manufacturer)</b>	<b>AK-KİM KİMYA SAN. VE TİC. A.Ş.</b> <a href="http://www.akkim.com.tr">www.akkim.com.tr</a>
<b>Address – Factory</b>	Denizçalı Köyü, Taşköprü Mevkii, P.K. 39 77600 Yalova / TÜRKİYE
<b>Telephone</b>	0 226 815 33 00
<b>Fax</b>	0 226 353 25 39

#### 1.4 Information Providing Authority About Safety Data Sheet

	Ali Haydar KETİR – Environmental Engineer
<b>Telephone</b>	+90 (226) 815 33 00 / 33304
<b>Fax</b>	<a href="mailto:ali.ketir@akkim.com.tr">ali.ketir@akkim.com.tr</a>

#### 1.5 Emergency Telephone Number

<b>Company Emergency</b>	0 226 815 33 00
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### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification Of The Product

##### 2.1.1 Classification According to Regulation (EC) No 1272/2008

- Acute toxicity, Category 4, dermal; H312
- Acute toxicity, Category 4, inhalation; H332
- Eye irritation, Category 2; H319
- Reproductive toxicity, Category 1B; H360D

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### 2.2 Label elements

#### 2.2.1. Labeling According to Regulation (EC) No 1272/2008 [CLP<sup>4</sup>/GHS<sup>5</sup>]

##### Product Identifier

Hazard Component for Labeling

· DIMETHYLACETAMIDE (DMAC)

##### Hazard Pictograms



##### Signal Word

· Danger

##### Hazard Statements

**H312+H332** Harmful in contact with skin or if inhaled.

**H319** Causes serious eye irritation.

**H360D** May damage the unborn child.

##### Precautionary Statements

###### General

· None

###### Prevention

**P201** Obtain special instructions before use.

**P280** Wear protective gloves/ eye protection/ face protection

###### Response

**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

###### Storage

· None

###### Disposal

· None

##### Supplemental Hazard Information (EU) Statements

· None

#### 2.2.2. Special Rules For Supplemental Label Elements For Certain Mixtures

None.

#### 2.2.3. Additional Labeling

· Not Applicable

### 2.3 Hazard Identification

#### 2.3.1. Skin Contact

May be harmful if absorbed through skin. May cause skin irritation

#### 2.3.2. Eye Contact

Causes eye irritation.

#### 2.3.3. Ingestion

Harmful if swallowed.

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### 2.3.4. Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

### 2.3.5. Long term effects

May cause irritation on skin, respiratory track and eyes.

### 2.3.6. Adverse Environmental Effects



No data available

### 2.4. Additional Information

· None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Description Of The Substance: N,N-dimethylacetamide ( ≥ 99,9%)

NAME	EINECS NO	CAS NO.	CONTENT (%)	CLASSIFICATION
				CLP
N,N-dimethylacetamide	204-826-4	127-19-5	> 99,9 %	  <b>DANGER</b> Acute toxicity, Category 4, dermal; H312 Acute toxicity, Category 4, inhalation; H332 Eye irritation, Category 2; H319 Reproductive toxicity, Category 1B; H360D

### 3.2 Additional information

· None

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### 4.1.1 General information

- Remove contaminated clothing.
- In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### 4.1.2 Following inhalation

- Whilst protecting yourself remove the casualty from the hazardous area and take him to the fresh air.
- Lay the casualty down in a quiet place and protect him against hypothermia.
- In the case of breathing difficulties have the casualty inhale oxygen.
- Arrange medical treatment.
- Following inhalation of thermal decomposition products:
- As soon as possible repeatedly have the casualty deeply breath a glucocorticoid inhalation spray in.
- If shortness of breath appears, a doctor should be called to the site of the accident.

#### 4.1.3 Following skin contact

- Remove contaminated clothing while protecting yourself.
- Immediately cleanse the affected skin areas with soap under running water.
- Under no circumstances use alcohol, gasoline or other solvents.
- Even if irritation is not present, after extensive contact a doctor should be consulted.

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### 4.1.4 Following eye contact

- Rinse the affected eye with widely spread lids for 10 minutes under running water whilst protecting the unimpaired eye.
- Arrange medical treatment.

### 4.1.5 Following ingestion

- Rinse the mouth and spit the fluids out.
- If the casualty is conscious have him drink copious amounts of liquids (water).
- Do not make the casualty vomit.
- Arrange medical treatment.
- If spontaneous vomiting occurs, hold the head of the casualty low with the body in a prone position in order to avoid penetration of vomit into the trachea.

### 4.1.6 Self-protection of the first aider

- Pay attention to self-protection

### 4.1.7 Notes for the doctor

- Acute poisoning with N,N-dimethylacetamide has not been reported to date. Reference points to this result from animal experiments and older attempts to use it therapeutically.
- Health complaints as a consequence of careless handling in working areas mostly resulted from combined inhalative and dermal exposure but sometimes also only from dermal contact.
- Symptoms of acute poisoning:
- Eyes: conjunctivitis, after prolonged contact damage to the cornea possible (reversible after a few days)
- Skin: slight, or possibly moderate irritation (hyperaemia, oedema), in particular after long-term contact (contaminated clothing); absorptive-toxic actions after extensive or repeated contact possible
- Inhalation: probably only minor irritation to the mucous membranes of the upper respiratory tract, dyspnoea after exposure to higher vapor concentrations possible, in this case then rapid entry of absorptive-toxic actions also to be expected; lung damage due to decomposition products.
- Ingestion: gastrointestinal complaints and rapid entry of systemic effects, possibly aggravated by consumption of alcohol
- Absorption: depression, lethargy, confusion, hallucinations, perception disorders, damage to the liver, changes to kidney functions or damage to the kidneys.
- Medical advice:
- Following eye contact treat symptomatically. To be on the safe side, arrange an ophthalmological consultation.
- After skin contact cleanse carefully. Further topical treatment will probably not be required. However, after extensive or prolonged contact (contaminated clothing!) postobservation is urgently recommended because of absorptive-toxic actions which could probably occur after a delay.
- The same applies to massive inhalative intake of aerosols.
- In the most cases, a lung oedema prophylaxis is recommended, in particular following inhalation of gases from the overheated or burning substance.
- Following ingestion only application of charcoal and laxatives (sodium sulfate) were recommended.

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- Because of the established hepatotoxicity of high doses, during the early stage of poisoning (relatively rapid absorption!) a gastrolavage can also be indicated. Based on the possible anaesthetizing action (analogous to N,N-dimethylformamide?) an endotracheal intubation should be done beforehand. After repeated washing with 300 ml lukewarm water each time finally apply charcoal suspended in a minimum of water and 100 ml of 20 % mannitol solution via the gastric tube.
  - The functions of the heart/circulatory system, liver and kidneys should be observed frequently.
- Recommendations:**
- Provide the physician information about the substance/product and treatment already administered.
  - For cases of ingestion of the similar acting dimethyl-formamide the literature provides inconsistent data regarding the indication of a provoked emesis.
  - While this measure seems to be unnecessary following ingestion of minor amounts (a few milliliters), higher, dangerous doses increase the danger of aspiration.
  - Therefore, as a rule, the required gastrolavage should be carried out as soon as possible instead of initiating of emesis.

## 5. FIRE-FIGHTING MEASURES

### 5.1 General Information and Flammable Properties

- The substance/product is combustible

### 5.2 Extinguishing media:

- For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide.
- For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective.
- Cool all affected containers with flooding quantities of water.

### 5.3 Unsuitable extinguishing media

- None known.

### 5.4 Special hazards arising from the product

- Nitrogen oxides; carbon monoxide; carbon dioxide.

### 5.5 Advice for fire-fighters

- Wear NIOSH<sup>6</sup> approved breathing apparatus, eye and face protector and chemical resistant clothes.

### 5.6 Additional information

- Use water spray to cool unopened containers.
- Contaminated extinguishing water must be disposed of in accordance with official regulations
- Do not allow the quenching water into sewage systems

## 6. ACCIDENTAL RELEASE MEASURES

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

- Avoid inhalation of vapors, mist or gas.

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- Ensure adequate ventilation
- Refer to protective measures listed in section 7 and 8.
- Put on protective equipment before entering danger area.

### 6.2 Environmental precautions

- Cover drains.
- Do not allow to enter into soil/subsoil.
- Do not empty into drains or the aquatic environment.

### 6.3 Methods and material for containment and cleaning up

#### 6.3.1 For containment

- Control personal contact by using protective equipment as required
- Take up contaminated material and pass on for further processing.
- Contain for disposal according to local / national regulations.

#### 6.3.2 For cleaning up

- Use protective equipment while cleaning if necessary.
- Use a tested industrial vacuum cleaner or suction device.
- Use of a blower for cleaning is not permitted.
- Only conduct maintenance and other work on or in the vessel or closed spaces after obtaining written permission.
- Only work with vessels and lines after they have been thoroughly rinsed.

#### 6.3.3 Other information

- Dispose of waste material according to local, state and federal regulations.

### 6.4 Reference to other sections

- Dispose of contaminated material as waste in accordance with section 13.
- See Section 13.

## 7. HANDLING AND STORAGE

### 7.1.1 Precautions for safe handling

#### 7.1.2 Protective measures

##### Personal preventions

- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.



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### Fire preventions

- The substance/product is combustible
- See section 5.

### Environmental precautions:

- Dispose of waste material according to local, state and federal regulations.

### 7.1.3 Advice on general occupational hygiene

- Use good occupational work practice.
- Comply with the health and safety at work laws.
- Remove contaminated clothing and protective equipment before entering eating areas.

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

- Keep in a cool place. Keep container dry.
- Keep container in a well-ventilated place
- Store in original containers.
- Store under inert gas.
- Hygroscopic
- Check all containers are clearly labelled and free from leaks.
- Keep containers securely sealed when not in use
- Avoid contact with incompatible materials
- Avoid physical damage to containers.

### STORAGE INCOMPATIBILITY

- Segregate from oxidants

### 7.1 Advice on common storage

- Do not use any food containers - risk of mistake.
- Containers have to be labelled clearly and permanently.
- Store in the original container as much as possible.
- Keep container tightly closed.
- Store in a cool place.
- Store in a dry place.
- Keep container in a well-ventilated place.

### 7.2 Specific precautions on storage

- Storage class 6.1 C (Combustible, acutely toxic Cat. 3 or chronic effecting substances)
- Only substances of the same storage class should be stored together.
- Collocated storage with the following substances is prohibited:
  - Pharmaceuticals, foods, and animal feeds including additives.
  - Infectious, radioactive und explosive substances.
  - Gases.
  - Other explosive substances of storage class 4.1A.
  - Strongly oxidizing substances of storage class 5.1A.
  - Ammonium nitrate and preparations containing ammonium nitrate.
  - Organic peroxides and self reactive substances.
- Under certain conditions the collocated storage with the following sub-stances is permitted (For more details see TRGS 510):
  - Spontaneously flammable substances.
  - Substances liberating flammable gases in contact with water.
  - Oxidizing substances of storage class 5.1B.

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- The substance should not be stored with substances with which hazardous chemical reactions are possible.
- The substance should not be stored with substances with which hazardous chemical reactions are possible.
- Observe the national and local regulations concerning handling and storage.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 Control parameters

Preventive industrial and medical examinations must be carried out according to the application area.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

##### 8.1.1 Occupational exposure limits

- TLV : 36 mg/m<sup>3</sup> (US)
- MAK : 10 mg/m<sup>3</sup> (DE)

#### 8.2 Exposure controls

- Adequate ventilation should be used during processing

##### 8.2.1 Appropriate engineering controls:

- Provide local exhaust ventilation.
- In the immediate working surroundings there must be: Emergency shower installed.
- Make available sufficient washing facilities.
- Provide eye shower and label its location conspicuously.
- See Section 7

##### 8.2.2 Personal protection equipment

###### 8.2.2.1 Eye / Face protection:

- Safety glasses with side shields.
- Chemical goggles approved under government standards such as NIOSH (US) or EN 166(EU)
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation
- Lens should be removed in a clean environment only after workers have washed hands thoroughly.



###### 8.2.2.2 Skin protection

Hand protection

- The use of resistant protective gloves is recommended.





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- Skin protection cremes do not protect as effectively against the substance as protective gloves. Therefore suitable protective gloves should be preferred as far as possible.
- The following information is valid for aqueous, saturated solutions of the salt.
- The following materials are suitable for protective gloves (Permeation time  $\geq 8$  hours):
- Immersion protection
- Material: butyl-rubber  
Minimum layer thickness: 0,3 mm  
Break through time: > 480 min  
Material tested: Butoject® (Aldrich Z677647, Size M)
- Splash protection  
Material: Nature latex/chloroprene  
Minimum layer thickness: 0,6 mm  
Break through time: > 30 min  
Material tested: Lapren® (Aldrich Z677558, Size M)
- If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### Body protection

- Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Other protection

- Handle in accordance with good industrial hygiene and safety practice.

### 8.2.2.3 Respiratory protection

- Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



### 8.2.3 Environmental exposure controls

- Legislation for the protection of the environment must be met in full.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

Form/Physical state	Liquid, clear
Color	Colourless
Odor	Ammonia odor
	Value
pH ( 200 g/l) @ (20°C)	4,0
Melting/Freezing point/range (°C)	-20
Boiling point/range (°C) 101,3 kPa	164,5-166

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Flash Point (°C)closed cup	70
Auto Ignition temperature (°C)	490
Viscosity cSt @ 40 °C	1,02
Density kg/l @15,6 °C	0,9448
Vapour Density (Air=1)	3,01
Heat of Vaporization (kcal/g.mole)	10,36
Heat of Combustion (kcal/g.mole)	608
Heat of Formation (Liquid, 0.87 °C) (cal/gr. °C)	0,485
Combustion Limits (by volume)	Min: 1,8% Max: 11,5%
Solubility in water g/l @ 20°C	Soluble
Solubility in ester, ketone and hydrocarbons	Soluble
Partition coefficient n-Octanol/Water (log Po/w)	-0,77
Vapour Pressure	<u>mm Hg</u> <u>°C</u>
	1,3        25
	3,4        40
	18         70
	46         90
	230        130
758        165,5	
Hydrolize	Tendency to hydrolyze with water solutions at high temperatures

*Note: The above features were determined according to prescribed methods at the Classification, Packaging and Labeling of Hazardous. Substances Regulation Section A-3 or a method comparable to the other.*

### 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

- Chlorinated hydrocarbons can react vehemently when heated, especially in presence of iron traces.

#### 10.2 Chemical stability

- Stable under recommended storage and handling conditions. (See section 7.)

#### 10.3 Possibility of hazardous reactions

- The substance can react dangerously with:
- Strong oxidizing agents
- Hexachloro cyclohexane
- Carbon tetrachloride

#### 10.4 Conditions to avoid:

- Heat, flames and sparks.

#### 10.5 Incompatible materials:

- Strong oxidizing agents
- Hexachloro cyclohexane
- Carbon tetrachloride

#### 10.6 Hazardous decomposition products:

- Nitrogen oxides; carbon monoxide; carbon dioxide.

#### 10.7 Hazardous polymerization:

- None.

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### 11. TOXICOLOGICAL INFORMATION

#### 11.1 General Information

- Routes of exposure:
- - During occupational handling of sodium metabisulfite (S.) exposure is to be expected via the inhalative and dermal intake pathways.

#### 11.2 Acute toxicity

##### Oral:

- Type of value: LD50
- Species: rat
- Value: approx. 4300 mg/kg

##### Dermal:

- Type of value: LD50
- Species: rabbit
- Value: 2240 mg/kg.

##### Inhalation:

- Type of value: LD50
- Species: ratt
- Value: 2475 mg/kg- 1 hour.

#### 11.3 Skin corrosion/irritation and Eye damage/irritation:

##### Skin:

- no data available

##### Eye:

- Eyes - rabbit – Mild eye irritation.

##### Sensitization:

- Did not cause sansitization on laboratory animals.

#### 11.4 CMR effects (Carcinogenity) :

- IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Sodium metabisulphite).

#### 11.5 CMR effects (Mutagenicity and Toxicity for reproduction) :

- This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC,
- ACGIH, NTP, or EPA classification..

#### 11.6 Other Toxicological Effects:

Allergic Effects	May cause allergic reactions depends on sensitization
Effects on Repeated Doses Chronic Exposures	May cause allergic reactions depends on sensitization
Sensitization	Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals
Developmental Toxicity (Teratogenicity)	No data available concerning teratogenic effects. The chemical structure does not suggest such an effect.
Fertility	May cause congenital malformation in the fetus. Presumed human reproductive toxicant.

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### 11.7 STOT-single/repeated exposures:

STOT-single exposure	No data available
STOT-repeated exposure	No data available

### 11.8 Symptoms related to the physical, chemical and toxicological characteristics:

In case of inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
In case of skin contact	May be harmful if absorbed through skin. May cause skin irritation
In case of eye contact	Causes eye irritation.
In case of ingestion	Harmful if swallowed

### 11.9 Additional Toxicological Information:

- Toxicological classifications are based on available knowledge and information
- EEC classification: Harmful.
- The special effects to health are considered by taking into account the information in section 3.
- RTECS: AB7700000

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity:

- Acute Fish Toxicity (LC50 96 hour): >500 mg/l (Golden orfe) -
- Acute Daphnia Toxicity (EC50 48 hour): >500 mg/l (Water flea)
- Acute Algae Toxicity (EC50 72 hour): >500 mg/l (green algae)

### 12.2 Photo degradation

aerobic - Exposure time 14 d  
Result: 77 - 83 % - Readily biodegradable.  
Method: OECD Test Guideline 302

### 12.3 Effects on Waste Water Treatment Plants

Not determined.

### 12.4 Mobility

Liquid  
Soluble  
Refer to ecotoxicity.

Water threat class No data available

Clean Water Impact No data available

Known or predicted environmental distribution No data available

### 12.5 Results of PBT and vPvB assessment

Biotic	
Ready biodegradability:	No data available
Abiotic:	
Hydrolysis as a function of pH:	No data available
Photolysis:	No data available
Atmospheric oxidation:	No data available

### · Persistence and degradability:

Decomposition Potential of the products No data available

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The half-life of degradation	No data available
Potential degradation of product content in the evaluation of wastewater treatment plants	No data available
<b>Bioaccumulation Potential :</b>	
Biological environment (biota) accumulation potential	No data available
Potential - nutrients pass through	No data available
Reference Values - Log Kow , Sw and BCF	Log Po/w: -0,77
<b>12.6 Additional information</b>	
See the sections 6, 7, 13, 14 and 15.	

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Product / Packaging disposal

- This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.
- If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means.
- Shelf life considerations should also be applied in making decisions of this type.
- Note that properties of a material may change in use, and recycling or reuse may not always be appropriate
- When recycling of the product is not possible, disposal to landfill or incineration in accordance with all applicable government laws and regulations is recommended.
- Disposal according to local authority regulations.
- Contact waste disposal services

#### 13.2 Contaminated packaging

- If there is product residue in the emptied container, follow directions for handling on the container's label.
- Contaminated packaging must be emptied of all residues and can be recycled following appropriate cleaning.

#### 13.3 Disposal Methods

- This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.
- Offer surplus and non-recyclable solutions to a licensed disposal company.
- Dispose of chemicals waste or in accordance with local regulations.
- Follow all applicable local laws, rules and regulations regarding the proper disposal of this material.
- If this product has been altered or contaminated with other hazardous materials, appropriate waste analysis may be necessary to determine proper method for disposal

#### 13.4 European Waste Catalogue

- The final classification has to be done together with the local waste disposal company / authority.

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### 14. TRANSPORT INFORMATION

	ADR <sup>7</sup> /RID <sup>8</sup>	ADNR	IMDG <sup>9</sup>	ICAO <sup>10</sup> /IATA <sup>11</sup>
TRANSPORTATION	Road	River	Marine	Airways
<b>PROPER SHIPPING NAME</b>	Not classified as a dangerous good under transport regulations			
UN/ID No.	-	-	-	-
SYMBOL	-	-	-	-
CLASS	-	-	-	-
PACKAGING GROUP	-	-	-	-
LABELLING NO	-	-	-	-
CLASSIFICATION CODE	-	-	-	-
HAZARD NO (HIN NO)	-	-	-	-
EmS	-	-	-	-
MARINE Pollutant	-	-	NO	-
<i>Road Transport Notes: This product is not regulated as a hazardous material.</i>				

### 15. REGULATORY INFORMATION

#### 15.1 Safety, Health And Environmental Regulations / Legislation Specific For The Substance

Substance is found on the following regulatory lists;;

- "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)"

#### 15.2 Chemical Safety Assessment

No data available

##### 15.2.1 HAZARD

CLP classification according to Annex VI of CLP (Regulation (EC) No 1272/2008)

- Harmful in contact with skin or if inhaled.
- Causes serious eye irritation.
- May damage the unborn child.

##### 15.2.2 RISK

- May cause harm to the unborn child
- Also harmful by inhalation and in contact with skin

#### 15.3 INTERNATIONAL REGULATIONS

- This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 and ISO 11014:2009. This product is classified according to EU Directive 67/548/EC and GHS/CLP.

### 16. OTHER INFORMATION

#### 16.1 Other information

- For additional information regarding **AK-KIM KIMYA SAN. VE TIC. ŞTİ.** products please contact the **AK-KIM KIMYA SAN. VE TIC. A.Ş** Vedat Ateşoğlu - [vatesoglu@akkim.com.tr](mailto:vatesoglu@akkim.com.tr)
- The above information complies with the 199/45/EC and 1907/2006 Directives and their amendments.
- In all cases of potential poisoning supportive therapy is of the utmost importance.



# Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH)

## DIMETHYLACETILAMIDE (DMAC)

Version: 1.0  
Form No: 193241

Preparation Date : 11/11/2013  
Revision Date: 11/11/2013

### 16.2 Related Person

- Vedat Ateşoğlu - vatesoglu@akkim.com.tr Ak-Kim Kimya San. Ve Tic. A.Ş
- Prepared by : Ali Haydar KETİR - Ak-Kim Kimya San. Ve Tic. A.Ş  
[ali.ketir@akkim.com.tr](mailto:ali.ketir@akkim.com.tr)
- **Competent Person Accreditation no : TSE GBF-0855 28.07.2011**

### 16.3 Revision Date, Version and SDS no

- Date : November 11, 2013
- Version : 1.0
- MSDS No : 193241

### 16.4 Reason of re-issue

- Compiling according to Regulation (EC) No 1272/2008

### 16.5 Relevant R-, H- and EUH-phrases (number and full text):

<b>H312+H332</b>	Harmful in contact with skin or if inhaled.
<b>H319</b>	Causes serious eye irritation.
<b>H360D</b>	May damage the unborn child.

### 16.6 Legal disclaimer

- The purpose of the above information is to describe the products only in terms of health and safety requirements.
- The information given should not, therefore, be construed as guaranteeing specific properties or as specification.
- Customers should satisfy themselves as to the suitability and completeness of such information for their own particular use.
- 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 above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.
- The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. Due to the many factors outside our control when using this product, we cannot accept liability for any injury, accident, loss or damage caused through its use.

<sup>1</sup> SDS: Safety Data Sheet

<sup>2</sup> CAS: Chemical Abstract Service

<sup>3</sup> EINECS: European INventory of Existing Commercial

<sup>4</sup> CLP: Classification Labelling and Packaging

<sup>5</sup> GHS: Global Harmonised System

<sup>6</sup> NIOSH: National Institute of Occupational Safety and Health( Ulusal İş Sağlığı ve Güvenliği Enstitüsü)

<sup>7</sup> ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

<sup>8</sup> RID: Regulations Concerning the International Transport of Dangerous Goods by Rail

<sup>9</sup> IMDG: International Maritime Code for Dangerous Goods

<sup>10</sup> ICAO: International Civil Aviation Organization

<sup>11</sup> IATA: International Air Transport Association