

# Safety Data Sheet

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Revision Date: 04.08.2022 Version 2

# TEKKİM

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Catalog No. TK.050151.00000  
Product Name N,N-Dimethylformamide  
Cas no 68-12-2

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1. Relevant identified uses

Industrial uses. Scientific research and development. Use as laboratory reagent.

#### 1.2.2. Uses advised against

No information available.

### 1.3. Details of the supplier of the safety data sheet

Name TEKKİM KİMYA SAN. TİC. LTD. ŞTİ.  
Street ORGANİZE SAN. BÖL. MAVİ CAD. 8. SOK. NO :1 NİLÜFER / BURSA  
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Company Representative Erhan DİLER

**1.4 Emergency Telephone Number +90 506 990 36 86**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP)

Flammable liquid category 3  
Acute toxicity category 4, skin  
Acute toxicity category 4 inhalation  
Eye irritation category 2  
Reproductive toxicity category 1B

Full text of R-, H- and EUH-phrases: see section 16.

### 2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 (CLP)

Hazard pictograms



Signal word (SEA)

DANGER


Hazard Statements (SEA)

H226 Flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H312+H332 Harmful in contact with skin or if inhaled.  
H360D May cause damage to the unborn child.

Precautionary Statements (SEA)



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## Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P201 Obtain special instructions before use.

## Response

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 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.

## SECTION 3: Composition/information on ingredients

Classification according to Regulation (EC) No. 1272/2008 (CLP)

### 3.1 Maddeler

|               |             |
|---------------|-------------|
| EC No         | 200-679-5   |
| Molar mass    | 73.09 g/mol |
| Cas No        | 68-12-2     |
| Concentration | (<= 100 % ) |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

|                               |  |
|-------------------------------|--|
| <i>General information</i>    | In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). |
| <i>Following inhalation</i>   | Remove casualty to fresh air and keep warm and at rest..   |
| <i>Following skin contact</i> | Wash with plenty of water. Take off contaminated clothing.   |
| <i>Following eye contact</i>  | In case of contact with eyes, rinse immediately with plenty of water and consult an ophthalmologist.                           |
| <i>Following ingestion</i>    | Please give up to two glasses of water. Get immediate medical attention.   |

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling

### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

*Suitable extinguishing media*

Water. Foam. Dry extinguishing powder. Carbon dioxide (CO2).

*Unsuitable extinguishing media*

There is no restriction for this item.

### 5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated:.. Flammable. Heavy vapors in the air at the ground surface may occur.. It can create explosive mixtures with air on intense heating. In case of fire hazardous combustion gases or vapors may occur.. Nitrogen oxide.

### 5.3 Advice for firefighters

*Special protective equipment for firefighters*

Do not stay in dangerous zone without self-contained breathing apparatus. Keep a safe distance to cut off contact with skin and wear suitable protective clothing.

### 5.4 Additional information

Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control.

## SECTION 6: Accidental release measures

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



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Advice for non-emergency personnel: Don't breathe vapours, aerosols. Avoid substance contact. Keep away from head and source of ignition. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert..

## 6.2 Environmental precautions

Do not discharge into sewer. Risk of explosion.

## 6.3 Methods and material for containment and cleaning up

Close drainage channels. Take up with liquid-absorbent material. Clean the affected area.

## 6.4 Reference to other sections

Disposal: see section 13.

## 6.5 Additional information

Clear spills immediately.

## SECTION 7: Handling and Storage

### 7.1 Precautions for safe handling

*Advices on safe handling*

Observe label precautions. Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

*Advices on general occupational hygiene*

Change contaminated clothing. Wash hands after working with substance.

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

*Storage conditions*

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and anything that can cause ignition.

### 7.3 Specific end uses

There are no other specific uses other than those mentioned in section 1.2.

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

N, N-Dimethylformamide (68-12-2)

TR MAK Skin description: Can be absorbed through the skin.

Acceptable maximum concentration (MAK) 10 mbp  
30 mg / m<sup>3</sup>

TR OEL Skin description: Can be absorbed through the skin.

Another time 15 unless specified for a minute not to be exceeded upper limit of exposure value (STEL): 10 mbp  
30 mg / m<sup>3</sup>

8 hour set for reference time measured or calculated time weighted average (TWA): 5 mbp  
15 mg / m<sup>3</sup>

### 8.2 Exposure controls

#### Appropriate engineering controls

More attention should be paid to technical measures against the use of personal protective equipment.



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## Personal protection equipment

### Eye/face protection

Safety glasses

### Hand protection

Hand protection

Full contact

Glove material : butyl rubber

Glove thickness :0,7 mm

Break through time : >480 minute

Splash contact :

Glove material : Viton (R)

Glove thickness :0,7 mm

Break through time : >240 minute

The protective gloves to be used must comply with the specifications of directive 89/686/EEC and the related standart EN374.

### Other skin protection

Flame reterdant antistatic protective chlothing.

### Respiratory protection

Required when vapours are generated

Recommented filter type : Filter A-(P2)

## SECTION 9: Physical and chemical Properties


### 9.1 Information on basic physical and chemical properties

|  |   |
|--|---|
| Physical state                               | Liquid  |
| Colour                                       | Colorless   |
| Odour  | like amen   |
| Odour threshold                              | 0,329 ppm   |
| pH value                                     | 6,5 - 7,5 200 g/l 20 °C                                 |
| Melting point/freezing point                 | -61 °C  |
| Freezing point                               | No information.   |
| Initial boiling point and boiling range      | 153 °C  |
| Flash point                                  | 57,5 °C   |
| Evaporation rate                             | No information.   |
| Flammability (solid, gas)                    | 435 °C  |
| Upper/lower flammability or explosive limits | 2,2 %(V)  |
| Upper/lower flammability or explosive limits | 16 %(V)   |
| Vapour pressure                              | 3,77 hPa 20 °C  |
| Vapour density                               | 2,52  |
| Density                                      | 0,944 g/cm3 25 °C                                       |
| Relative density                             | No information.   |
| Water solubility (g/l)                       | Soluble.  |
| Fat solubility (g/l)                         | No information.   |
| Partition coefficient: n-octanol/water       | log Pow: -0,85 25 °C - Bioaccumulation is not expected. |
| Auto-ignition temperature                    | No information.   |
| Decomposition temperature                    | > 350 °C  |
| Viscosity                                    |   |
| Kinematic viscosity                          | No information.   |
| Dynamic viscosity                            | 0,86 mPa.s 20 °C  |
| Explosive properties                         | Not classified as explosive.                            |
| Oxidising properties                         | none  |

## SECTION 10: Stability and Reactivity



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## 10.1 Reactivity

Vapours may form explosive mixtures with air.

## 10.2 Chemical stability

The product is stable under storage at normal ambient temperatures..

## 10.3 Possibility of hazardous reactions

Violent reactions can occur with alkali metals, halogens, halides, reducing compounds, triethylaluminum, nitrates, metallic oxides, nonmetallic oxides, Halogenated hydrocarbon, Isocyanates, sodium, Sodium borohydride, hydrides, Oxidizing agents, Phosphorus oxides.

Risk of explosion and / or formation of toxic gases with azides, Bromine, Chlorine, chromium (VI) oxide, potassium permanganate, triethylaluminum, chlorates, Halogenated hydrocarbons.

## 10.4 Conditions to avoid

Powerful heating.

## 10.5 Incompatible materials

Various plastics. Copper alloys.

## 10.6 Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute oral toxicity

LD50 Rat: 3.010 mg / kg

OECD Test Guideline 401

Symptoms: Gastrointestinal disturbances, Nausea, Vomiting

Acute inhalation toxicity

Symptoms: Possible damages :, mucosal irritations

Acute dermal toxicity

LD50 Rabbit: 1.500 mg / kg

(IUCLID)

Eye irritation

Rabbit

Result: Eye irritation

(IUCLID)

Causes serious eye irritation.

CMR effects

Teratogenicity (may cause developmental disabilities):

May damage the unborn child

Repeated dose toxicity

Rat

male and female

Oral

28 g

Daily

NOAEL: 238 mg / kg

LOAEL: 475 mg / kg

OECD Test Guideline 407

Subacute toxicity

### 11.2 Additional information

After absorption: Headache, Dizziness, Drowsiness


It has damage to kidney and liver.

Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12: Ecological information



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## 12.1 Toxicity

Toxicity to fish

flow-through test LC50 *Lepomis macrochirus* (Bluegill sunfish): 7,100 mg / l; 96 h

Analytical monitoring: yes

US-EPA

Toxicity to daphnia and other aquatic invertebrates

static test EC50 *Daphnia magna* (Water flea): 13.100 mg / l; 48 hrs

OECD Test Guideline 202

Toxicity to algae (algae)

static test EC50 *Desmodesmus subspicatus* (green algae): > 1,000 mg / l; 72 h DIN 38412

Toxicity to bacteria

static test EC50 *Vibrio fischeri*: 12.300 - 17.500 mg / l; 5 min

(External product safety sheet)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

semi-static test NOEC *Daphnia magna* (Water flea): 1.500 mg / l; 21 g

(External product safety sheet)

## 12.2 Persistence and degradability

Biodegradation

one hundred %; 21 g; oxygenated (aerobic)

OECD Test Guideline 301E

It is easily soluble in nature by itself.

Biochemical Oxygen Demand (BOD)

900 mg / g (5 g)

(Source)

Theoretical oxygen demand (ThOD)

1.863 mg / g

## 12.3 Bioaccumulative potential

Partition coefficient (n-octanol / water)

log Pow: -0.85 (25 ° C)

OECD Test Guideline 107

Bioaccumulation is not expected.

Bioaccumulation

Bioconcentration factor (BCF): 0.3 - 1.2

*Cyprinus carpio* (Carp); 56 g

OECD Test Guideline 305C

It does not accumulate significantly in organisms.

## 12.4 Mobility in soil

No information available.

## 12.5 Results of PBT and vPvB assessment

Substance does not meet the criteria for PBT or vPvB.

## 12.6 Other adverse effects

Stability in water about 50 g

reaction with hydroxyl radicals


Discharge into environment must be avoided

## SECTION 13: Disposal considerations

### Waste treatment methods



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It must be disposed of in accordance with national and local regulations. Do not mix with other products. Uncleaned Treat packages as if it were the product itself ... Waste materials must be disposed of in accordance with national and local regulations.

## SECTION 14: Transport information

| ADR  | IMDG                  | IATA                  | ADN                   | RID                   |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>14.1 UN number</b><br>UN 2265                             | UN 2265               | UN 2265               | UN 2265               | UN 2265               |
| <b>14.2 UN proper shipping name</b><br>N,N-DIMETHYLFORMAMIDE | N,N-DIMETHYLFORMAMIDE | N,N-DIMETHYLFORMAMIDE | N,N-DIMETHYLFORMAMIDE | N,N-DIMETHYLFORMAMIDE |

### 14.3 Transport hazard class(es)

|   |   |   |   |   |
|---|---|---|---|---|
| 3 | 3 | 3 | 3 | 3 |
|---|---|---|---|---|



### 14.4 Packing group

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
| III | III | III | III | III |
|-----|-----|-----|-----|-----|

### 14.5 Environmental hazards

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
| YES | YES | YES | YES | YES |
|-----|-----|-----|-----|-----|

No information available. No information available. No information available. No information available. No information available.

### 14.6 Special Precautions for User:

No information available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental legislation specific for the substance or mixture

This product safety data sheet complies with the requirements of EU Regulation 1907/2006.

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been conducted for this substance.

## SECTION 16: Other informations

### Full text of H statements

- H226 Flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H312+H332 Harmful in contact with skin or if inhaled.
- H360D May cause damage to the unborn child.

Person Who Prepared the Safety Data Sheet:

Name: Erhan DİLER  
Certificate Number and Date: 11.29.03 & 11 Şubat 2020  
Communication information: 05069903686



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