

## Safety Data Sheet

COMMISSION REGULATION (EU) NO 2015/830 OF 1<sup>st</sup> June 2015

Amending Annex II of Regulation EU No 453/2010

Revision No-07

Printing Date 25/08/2020

Product Name – N,N' Dimethyl propylene urea

Revision Date- 24/08/2020

## 1. Identification Of the Substance

### 1.1 Product Identifier

- **Product Name:** N,N' Dimethyl propylene urea
- **Synonym:** Tetrahydro-1,3-dimethyl-1H-pyrimidin-2-one
- **Trade Name:** DMPU
- **Cas No:** 7226-23-5
- **E.C No:** 230-625-6
- **Index No:** 613-280-00-X

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

- As polar aprotic solvent: No further relevant Information available

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

#### - Manufacturer/Supplier

Alkyl Amines Chemicals Ltd  
401-407, Nirman Vyapar Kendra, Plot No-10  
Sect- 17, Vashi, Navi Mumbai- 400 703

#### - e-mail address of the competent person responsible for Safety data sheet :

[rsattigeri@alkylamines.com](mailto:rsattigeri@alkylamines.com)

#### - Informing Dept : R&D

- **Emergency Contact No :** +991 2117 235175/235222 , **Mobile No :** +919881973507 / +91 9423002721

- **Emergency Contact No for US only :** +1 703 527 3887 / 800 424 9300

### 1.4 Emergency Contact No : As mentioned above

## 2. Hazard Identification

### -2.1 Classification of the Substance

- Classification According to Regulation EC No 1272/2008



**GHS05 Eye Damage Cat.1 H318** – Causes serious eye damage



**GHS08 Reproductive Toxicity Cat.2 H361f**- Suspected of damaging fertility



**GHS07 Acute Toxicity Cat.4 H302** – Harmful if swallowed.

### -2.2 Label elements

- Labelling According Regulation EC No : 1272/2008

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The substance is classified according to CLP regulation



**Signal word- Danger**

**- Hazard Statements :**

**H318** – Causes serious eye damage

**H361f**- Suspected of damaging fertility

**H302** – Harmful if swallowed

**- Precautionary statements**

**Preventin:**

**P280** - Wear protective gloves/protective clothing/eye protection/face protection.

**P201** - Obtain special instructions before use.

**P202**- Do not handle until all safety precautions have been read and understood.

**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.

**P310** -Immediately call a POISON CENTER or doctor/physician.

**Storage:**

**P405**- Store locked up.

**Disposal:**

**P501**- Dispose of the content/container in accordance with the local/regional/national/international regulation

**-2.3Other Hazards :**

The substance is not PBT/vPvB

### 3. Composition/Information on Ingredients

Description	CAS No	EC No	Content (% w/w)
N,N' Dimethyl propylene Urea	7226-23-5	230-625-6	>99.0 % w/w

**Molecular Formula** – C<sub>6</sub>H<sub>12</sub>N<sub>2</sub>O

**Molecular Wt**- 128.17

### 4. First- Aid Measures

#### --4.1 Description of first aid measures

**General information:**

Immediately remove any clothing contaminated by the product.

Symptoms of poisoning may occur after several hours. Medical observation for at least 48 hours after the accident is recommended.

IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

**After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor.

**After skin contact:**

Rinse with plenty of water.

If skin irritation continues, consult a doctor.

**After eye contact:**

Rinse opened eye for several minutes under running water.

Use eye protection.

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Call a doctor immediately.

**After swallowing:**

Rinse out mouth and then drink at least 200-300 ml of water.

Call a doctor immediately.

**-4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

**-4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available

## 5. Fire Fighting Measures

### - 5.1 Extinguishing media

#### Suitable extinguishing agents

Carbon dioxide (CO<sub>2</sub>), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents none

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

Can be released in case of fire:

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide (CO) and Carbon dioxide (CO<sub>2</sub>)

### - 5.3 Advice for fire-fighters

**Protective equipment:** Wear self-contained breathing apparatus.

#### Additional information

Cool endangered containers with water spray jet.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

If without risk possible, move drums with material away from dangerous area.

## 6. Accidental release Measures

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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Avoid contact with skin and eyes.

Do not breathe vapours.

### - 6.2 Environmental precautions:

Damp down gases/fumes/haze with water spray jet.

Do not allow to enter drainage system, surface or ground water.

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

Ensure adequate ventilation.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

### - 6.4 Reference to other sections

See Section 8 for information on personal protection equipment.

## 7. Handling and Storage

### - 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with skin and eyes.

Do not inhale vapours/aerosols.

#### Information about protection against explosions and fires:

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.

Protect from heat.

Keep ignition sources away - Do not smoke.

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**- 7.2 Conditions for safe storage, including any incompatibilities****Storage****Requirements to be met by storerooms and containers:**

Observe all local and national regulations for storage of water polluting products.

**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:**Store under shade at ambient temperature (<45<sup>o</sup>C) & dry conditions in well-sealed containers

Store container in a well ventilated place.

**7.3 Specific end use(s)** No further relevant information available.**8. Exposure Control/Personal Protection****· 8.1 Control parameters****· Components with critical values that require monitoring at the workplace:** No occupational exposure limits known.**· Additional information:** The lists that were valid during the compilation were used as basis.**· 8.2 Exposure controls****· Personal protective equipment****· General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.

Instantly remove any contaminated garments.

Do not eat, drink or smoke while working.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Wash hands during breaks and at the end of the work.

**· Breathing equipment:**

Use breathing protection in case of insufficient ventilation.

Use breathing protection with high concentrations..

**· Protection of hands:**

Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.

Check the permeability prior to each renewed use of the glove.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**· Material of gloves**

Butyl rubber - BR

Recommended thickness of the material:  $\geq 0.7$  mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**· Penetration time of glove material**Penetration time:  $\geq 8$  hours

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**· As protection from splashes gloves made of the following materials are suitable:**

Nitrile rubber - NBR

Recommended thickness of the material:  $\geq 0.4$  mmPenetration time:  $\geq 30$  min.**· Eye protection:** Tightly sealed safety glasses**· Body protection:**

Protective work clothing

Body protection must be chosen depending on possible activity and exposure .

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## 9. Physical and Chemical Properties

### - 9.1 Information on Basic physical and Chemical Properties

<b>Appearance/Physical state /colour</b>	Colourless liquid
<b>Explosive limit Upper</b>	9.3 vol %
<b>lower</b>	1.6 vol %
<b>Odour</b>	No peculiar odour
<b>Vapour pressure</b>	0.5 hPa @ 57 °C
<b>Odour Threshold</b>	No data available
<b>Vapour density</b>	0.02 hPa @20 °C
<b>PH (10% in water)</b>	11 @ 20 °C
<b>Density</b>	1.0600 g/cm <sup>3</sup> @ 20°C
<b>Melting point/freezing point</b>	-24 °C @ 1013hPa
<b>Solubility in water</b>	Miscible
<b>Initial Boiling Point/Boiling Range</b>	247 °C
<b>Flash Point</b>	121°C
<b>Evaporation Rate</b>	No data available
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Partition Coefficient : n-Octanol Water</b>	Log PoW = 0.18 @ 25 °C
<b>Auto ignition Temperature</b>	255 °C
<b>Decomposition temperature</b>	No data available
<b>Viscosity- dynamic</b>	3.32 m Pa s @ 20 °C
<b>Kinematic</b>	No data available
<b>Danger of Explosion</b>	Product is not explosive. However, formation of explosive air/vapour mixtures is possible.

-9.2 Other information- No further information available

## 10. Stability and Reactivity

### -10.1 Reactivity

#### 10.2 Chemical stability

##### Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications

To avoid thermal decomposition, do not overheat.

### - 10.3 Possibility of hazardous reactions

Risk of explosion with Chromium (VI)oxide

Can form explosive mixture in air if heated above flash point or when spread or atomised.

### - 10.4 Conditions to avoid No further relevant information available.

### - 10.5 Incompatible materials:

Strong oxidizing agents

Acids

### - 10.6 Hazardous decomposition products:

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide (CO) and Carbon dioxide (CO<sub>2</sub>)

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**11. Toxicological Information****-11.1 Information on Toxicological Effects****Acute Toxicity****LD50/LC50 values that are relevant for classification**

<b>LD 50 Oral</b>	1770 mg/kg for rat (male/female)
<b>LD 50 Dermal</b>	> 2000 mg/kg (Rabbit)
<b>LC 50 Inhalation</b>	study scientifically not necessary / other information available

**-Primary Irritant effect ;**

**Assessment :** Corrosive, damages skin and eyes.

**Skin irritation/corrosion :**

Animal Tests(OECD Guideline 404) conducted show the substance is slightly irritating..

**Eye irritation :**

Animal Test (OECD Guideline 405) results show the substance to be highly irritating to eyes

**Sensitization;**

No skin sensitization effects were observed in the animal tests..

**Genetic Toxicity :**

The substance was not found to be mutagenic in animal tests.

**Carcinogenicity :**

No component of this substance greater than or equal to 0.1% was identified to be probable/possible/confirmed carcinogenic by IARC.

**Repeated Dose toxicity (oral):**

The animal study indicates the target organs to be identified as spleen, thymus and kidney .

**Toxicity to Reproduction :**

The substance is suspected of damaging fertility.

**12. Ecological Information****-12.1 Toxicity****Aquatic toxicity**

<b>EC50/ 3 h</b>	>1000 mg/l (bacteria, activated sludge)
<b>LC50/96 h (static)</b>	1000-2000 mg/l (leuciscus idus)

**-12.2 Persistence and degradability** No further relevant information available

**Other information:** Biodegradability : < 10 % in 28 days (OECD 302B)

The product is slightly biodegradable.

**-12.3 Bio-accumulative potential**

log P(o/w): 0.9 @ 24 deg C

An accumulation in organisms is not expected (log P(o/w) <1).

**-12.4 Mobility in soil** No further relevant information available.**Additional ecological information:****General notes:**

Do not allow product to reach ground water, water bodies or sewage system.

Water hazard class 1: low hazardous for water ( Ref- GESTIS Substance Data Base)

**· 12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

**13. Disposal Consideration**

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**-13.1 Waste treatment methods****· Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Disposal must be made according to official regulations.

**Waste disposal key number:** According to local/national regulations.

**European waste catalogue:**

Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

**Un-cleaned packagings:**

**Recommendation:** Disposal must be made according to official regulations. Drum decontamination shall be done by initially rinsing with aqueous Acetic acid (5%) solution followed by water washing till neutral PH. It is strongly recommended to disfigure the container/drum before disposal.

**14. Transport Information**

<b>-14.1 UN Number</b> ADR, IMDG, IATA	Not Applicable
<b>-14.2 UN Proper Shipping Name</b> ADR  IMDG, IATA	Not dangerous good
<b>-14.3 Transport Hazard Class</b> ADR  Class Label	N.A N.A
IMDG, IATA  Class Label	N.A N.A
<b>-14.4 Packing Group</b> ADR, IMDG, IATA	N.A
<b>-14.5 Environmental Hazard</b> Marine Pollutant	No
<b>-14.6 Special Precautions For User</b> Kemler No EMS No	N.A

**15. Regulatory Information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****· National regulations**

**· Information about limitation of use:** Employment restrictions concerning young persons must be observed.

**· Decree to be applied in case of technical fault:** Directive 96/82/EC does not apply.

**· Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water( Ref- GESTIS Substance Data Base)

**· Other regulations, limitations and prohibitive regulations**

Observe restrictions on the marketing and use according to Annex XVII of Regulation (EC) No 1907/2006.

**· 15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16. Other Information**

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***This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.***

***Dept issuing MSDS- Tech services***

***Only Representative : Global Product Compliance (Europe)AB, Lund , Sweden***

***e-mail: sk@reach-onlyrep.eu info@gpcregulatory.com***

***Abbreviations and acronyms:***

***ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)***

***RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)***

***IMDG: International Maritime Code for Dangerous Goods***

***IATA: International Air Transport Association***

***IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association"***

***(IATA) ICAO: International Civil Aviation Organization.***

***ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)***

***GHS: Globally Harmonized System of Classification and Labeling of Chemicals***

***EINECS: European Inventory of Existing Commercial Chemical Substances***

***CAS: Chemical Abstracts Service (division of the American Chemical Society)***

***LC50: Lethal concentration, 50 percent.***

***LD50: Lethal dose, 50 percent***

***PBT : Persistent, Bio accumulative, Toxic***

***vPvB : Very persistent, very bio accumulative***

***Ref-***

- 1) Regulation (EC)No 1272/2008 of the European Parliament and of the Council***
- 2) Guidance on the compilation Safety Data Sheet publish by ECHA Ver. 2.1 Feb 2014***
- 3) Toxnet HSDB***
- 4) Chem-watch Gold MSDS***
- 5) European Chemicals Agency, <http://echa.europa.eu/>***