

**1 Identification of the substance/mixture and of the company/undertaking**

**Product identifier**  
**Trade name** **1,3-Dimethyl-2-imidazolidinone**  
**Stock number:** A16001, L02186  
**EINECS Number:** 201-304-8  
**Relevant identified uses of the substance or mixture and uses advised against**  
**Sector of Use** SU24 Scientific research and development  
**Details of the supplier of the safety data sheet**  
**Manufacturer/Supplier:** Alfa Aesar GmbH & Co.KG  
A Johnson Matthey Company  
Benzstrasse 3  
D-76185 Karlsruhe / Germany  
Tel: +49 (0) 721 84007 280  
Fax: +49 (0) 721 84007 300  
Email: tech@alfa.com  
www.alfa.com  
**Informing department:** Product safety department.  
**Emergency telephone number:** Product Safety Department +049 (0) 7275 988687-0 (business hours)  
Carechem 24: +44 (0) 1235 239 670 (Multi-language 24 hour emergency)  
Giftnotruf Universität Mainz / Poison Information Center Mainz  
www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240

**2 Hazards identification**

**Classification of the substance or mixture**  
**Classification according to Regulation (EC) No 1272/2008**



GHS06 skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

**Xn**; Harmful

R21/22: Harmful in contact with skin and if swallowed.

**Xi**; Irritant

R36/38: Irritating to eyes and skin.

**Label elements**

**Labelling according to Regulation (EC) No 1272/2008**

**Hazard pictograms**

The substance is classified and labelled according to the CLP regulation.



GHS06

**Signal word****Hazard statements**

Danger

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

**Precautionary statements**

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

Remove/Take off immediately all contaminated clothing.

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

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards**

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

**3 Composition/information on ingredients**

**Chemical characterization: Substances**

**(CAS#) Designation:** 1,3-Dimethyl-2-imidazolidinone (CAS# 80-73-9)

**Identification number(s):**

**EINECS Number:** 201-304-8

**4 First aid measures**

**Description of first aid measures**

**After inhalation**

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

**After skin contact**

Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly.

**After eye contact**

Seek immediate medical advice.

**After swallowing**

Rinse opened eye for several minutes under running water. Then consult doctor.

Seek immediate medical advice.

**5 Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents**

**Special hazards arising from the substance or mixture**

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

**Advice for firefighters**

**Protective equipment:**

Can be released in case of fire:  
Carbon monoxide and carbon dioxide  
Nitrogen oxides (NOx)

Wear self-contained breathing apparatus.

Wear full protective suit.

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**6 Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation

**Environmental precautions: Methods and material for containment and cleaning up:**

Do not allow material to be released to the environment without proper governmental permits.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling  
See section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

**7 Handling and storage****Handling Precautions for safe handling**

Keep containers tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation/exhaustion at the workplace.

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

Keep ignition sources away - Do not smoke.

**Conditions for safe storage, including any incompatibilities****Storage Requirements to be met by storerooms and containers: Information about storage in one common storage facility:**

No special requirements.

**Further information about storage conditions:**

Store away from oxidizing agents.  
Store away from water.  
This product is hygroscopic.  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.  
Protect from humidity and keep away from water.

**8 Exposure controls/personal protection****Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Control parameters Components with critical values that require monitoring at the workplace: Additional information:**

Not required.  
No data

**Exposure controls Personal protective equipment General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.  
Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.

**Breathing equipment:**

Use breathing protection with high concentrations.

**Eye protection:**

Safety glasses

**Body protection:**

Face protection  
Protective work clothing.

**9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

**Form:** Liquid  
**Colour:** Colourless  
**Smell:** Not determined  
**Odour threshold:** Not determined.

**pH-value:** Not determined.

**Change in condition**

**Melting point/Melting range:** 8°C  
**Boiling point/Boiling range:** 224-226°C  
**Sublimation temperature / start:** Not determined

**Flash point:** 93°C

**Inflammability (solid, gaseous)** Not applicable.

**Ignition temperature:** 305°C

**Decomposition temperature:** Not determined

**Self-inflammability:** Not determined.

**Danger of explosion:** Product is not explosive.

**Critical values for explosion:**

**Lower:** 1.3 Vol %  
**Upper:** 8.4 Vol %

**Steam pressure at 20°C:** <1 hPa

**Density at 20°C** 1.058 g/cm<sup>3</sup>  
**Relative density** Not determined.  
**Vapour density** Not determined.  
**Evaporation rate** Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible

**Segregation coefficient (n-octanol/water):** Not determined.

**Viscosity:**

**dynamic at 25°C:** 1.944 mPas  
**kinematic:** Not determined.

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**Safety data sheet**  
according to 1907/2006/EC, Article 31

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**Other information** No further relevant information available.

**10 Stability and reactivity**

**Reactivity**  
**Chemical stability**  
**Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.  
**Possibility of hazardous reactions** No dangerous reactions known  
**Incompatible materials:** Oxidizing agents  
Acid chlorides  
Water/moisture  
**Hazardous decomposition products:** Carbon monoxide and carbon dioxide  
Nitrogen oxides (NO<sub>x</sub>)

**11 Toxicological information****Information on toxicological effects****Acute toxicity:****LD/LC50 values that are relevant for classification:**

Oral	LD50	1260 mg/kg (rat)
Dermal	LD50	986 mg/kg (rabbit)
Irritation of eyes	severe	100 mg (rabbit)

**Primary irritant effect:****on the skin:**

Irritant for skin and mucous membranes.

**on the eye:**

Irritant effect.

**Sensitization:**

No sensitizing effect known.

**Additional toxicological information:**

Danger by skin resorption.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.


**12 Ecological information**

**Toxicity**  
**Acquatic toxicity:** No further relevant information available.  
**Persistence and degradability** No further relevant information available.  
**Behaviour in environmental systems:**  
**Bioaccumulative potential** No further relevant information available.  
**Mobility in soil** No further relevant information available.  
**Additional ecological information:**  
**General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.  
Do not allow material to be released to the environment without proper governmental permits.  
**Results of PBT and vPvB assessment**  
**PBT:** Not applicable.  
**vPvB:** Not applicable.  
**Other adverse effects** No further relevant information available.


**13 Disposal considerations**

**Waste treatment methods**  
**Recommendation** Consult state, local or national regulations for proper disposal.  
Hand over to disposers of hazardous waste.  
Must be specially treated under adherence to official regulations.  
**Uncleaned packagings:**  
**Recommendation:** Disposal must be made according to official regulations.


**14 Transport information****Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

  
**ADR/RID-GGVS/E Class:** 6.1 (T1) Toxic substances.  
**Kemler Number:** 60  
**UN-Number:** 2810  
**Packaging group:** III  
**Label** 6.1  
**UN proper shipping name:** 2810 TOXIC LIQUID, ORGANIC, N.O.S. (1,3-Dimethyl-2-imidazolidinone)  
**Limited quantities (LQ)** LQ7  
**Transport category** 2  
**Tunnel restriction code** E

**Maritime transport IMDG/GGVSea:**

  
**IMDG/GGVSea Class:** 6.1  
**UN Number:** 2810  
**Label** 6.1  
**Packaging group:** III  
**Marine pollutant:** No  
**Correct technical name:** TOXIC LIQUID, ORGANIC, N.O.S. (1,3-Dimethyl-2-imidazolidinone)

**Air transport ICAO-TI and IATA-DGR:**

  
**ICAO/IATA Class:** 6.1  
**UN/ID Number:** 2810  
**Label** 6.1  
**Packaging group:** III

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**Safety data sheet**  
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**Correct technical name:** TOXIC LIQUID, ORGANIC, N.O.S. (1,3-Dimethyl-2-imidazolidinone)

**UN "Model Regulation":**

UN2810, TOXIC LIQUID, ORGANIC, N.O.S., 6.1, III

**Special precautions for user  
Transport in bulk according to Annex II of  
MARPOL73/78 and the IBC Code**

Warning: Toxic substances.

Not applicable.

**15 Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Labelling according to Regulation (EC) No  
1272/2008**

The substance is classified and labelled according to the CLP regulation.

**Hazard pictograms**



GHS06

**Signal word**

Danger

**Hazard statements**

H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

**Precautionary statements**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P361 Remove/Take off immediately all contaminated clothing.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P321 Specific treatment (see on this label).  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**National regulations**

**Information about limitation of use:**

Employment restrictions concerning young persons must be observed.  
For use only by technically qualified individuals.

**Water hazard class:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

**Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**16 Other information**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Department issuing data specification sheet:** Health, Safety and Environmental Department.

**Contact:**

Zachariah C. Holt  
Global EHS Manager

**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 Labelling 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

GB