

编 码:

产品名称: 二甲基甲酰胺



危 险

儿童不得接触

使用前请读标签

易燃液体和蒸气。吸入或皮肤接触有害。造成严重眼刺激。可能对生育能力和胎儿造成伤害。

预防: 远离热源/火花/明火/热表面。禁止吸烟。保持容器密闭。容器和接收设备接地/等势联接。使用防爆的电气/通风/照明/设备。只能使用不产生火花的工具。采取防止静电放电的措施。戴防护手套/穿防护服/戴防护眼罩/戴防护面具。避免吸入烟雾/蒸气/喷雾。只能在室外或通风良好之处使用。作业后彻底清洗。在使用前获取特别指示。在读懂所有安全防范措施之前切勿搬动。

反应: 火灾时使用泡沫、化学干粉、二氧化碳、喷水或水雾灭火。如皮肤（或头发）沾染：立即去除/脱掉所有沾染的衣服。用水清洗皮肤/淋浴。如感觉不适，呼叫解毒中心或医生。具体治疗（见安全数据单）。沾染的衣服清洗后方可重新使用。如误吸入：将受害人转移到空气新鲜处，保持呼吸舒适的休息姿势。如感觉不适，呼叫解毒中心或医生。如进入眼睛：用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出，取出隐形眼镜。继续冲洗。如仍觉眼刺激：求医/就诊。如接触到或有疑虑：求医/就诊。

贮存: 存放于通风良好的地方。保持低温。存放处须加锁。

处置: 按照相关规定处置内装物和容器。

CODE:

PRODUCT NAME:

N,N-Dimethylformamide



Danger

Keep out of reach of children.

Read label before use.

Flammable liquid and vapor. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. May damage fertility or the unborn child.

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/ vapors/spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood

Response: In case of fire: Use Foam, Dry chemical powder, Carbon dioxide, Water spray or Fog to extinguish. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see safety sheet on this label). And wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention

Storage: Store in well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/container in accordance with relevant regulations.

化学品安全数据单

一、标识

全球统一制度产品标识符：二甲基甲酰胺/ N,N-Dimethylformamide。

其它标识办法： /

化学品使用建议和使用限制： /

供货商的详细情况： /

紧急电话号码： /

二、危险标识

物质或混合物的分类：

易燃液体类别 3

急性毒性（皮肤）类别 4

急性毒性（吸入）类别 4

严重眼损伤/眼刺激类别 2A

生殖毒性类别 1B。

全球统一制度标签要素，包括防范说明：



信号词：危险。

危险说明：易燃液体和蒸气。吸入或皮肤接触有害。造成严重眼刺激。可能对生育能力和胎儿造成伤害。

防范说明：

预防：

远离热源/火花/明火/热表面。禁止吸烟。保持容器密闭。容器和接收设备接地/等势联接。使用防爆的电气/通风/照明/设备。只能使用不产生火花的工具。采取防止静电放电的措施。戴防护手套/穿防护服/戴防护眼罩/戴防护面具。避免吸入烟雾/蒸气/喷雾。只能在室外或通风良好之处使用。作业后彻底清洗。在使用前获取特别指示。在读懂所有安全防范措施之前切勿搬动。

反应：

火灾时，使用泡沫、化学干粉、二氧化碳、喷水或水雾灭火。如皮肤（或头发）沾染：立即去除/脱掉所有沾染的衣服。用水清洗皮肤/淋浴。如感不适，呼叫解毒中心或医生。具体治疗（见下文）。沾染的衣服清洗后方可重新使用。如误吸入：将受害人转移到空气新鲜处，保持呼吸舒适的休息姿势。如感觉不适，呼叫解毒中心或医生。如进入眼睛：用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出，取出隐形眼镜。继续冲洗。如仍觉眼刺激：求医/就诊。如接触到或有疑虑：求医/就诊。

贮存：

存放于通风良好的地方。保持低温。存放处须加锁。

处置：

按照相关规定处置内装物和容器。

不导致分类的其他危险： /

三、组成/成分信息

化学名称	化学文摘社编号 (CAS No.)	成分(由送检 企业提供)
二甲基甲酰胺	68-12-2	99.98%

四、急救措施

不同暴露途径的急救方法

吸入: 迅速脱离现场至空气新鲜处。保持呼吸道通畅。如呼吸困难,给输氧。如呼吸停止,立即进行人工呼吸。就医。

皮肤接触: 脱去污染的衣着,用大量流动清水冲洗。

眼睛接触: 立即提起眼睑,用大量流动清水或生理盐水彻底冲洗至少 15 分钟。就医。

摄入: 漱口,就医。

最重要的急性和延迟症状/效应: /

必要时注明立即就医及所需的特殊治疗: /

五、消防措施

适当的灭火剂: 使用泡沫、化学干粉、二氧化碳、喷水或水雾灭火。

化学品产生的具体危险: 液体和蒸气易燃。受热或接触明火,有中等程度的火灾危险。蒸气与空气能形成爆炸性混合物。受热或接触明火,有中等程度的爆炸性危险。蒸气可能会飘散到离火源相当远的地方。受热能引起膨胀或分解,导致容器急剧破裂。燃烧时可能释放有毒的一氧化碳(CO)烟雾。

消防人员的特殊防护行动: 消防人员必须穿全身防护服并佩戴呼吸设备。用各种方法防止废液进入阴沟或水道。在安全的条件下,关掉电器,直至气体火灾危害被清除为止。喷水雾来控制火灾并冷却相邻区域。避免直接喷水到液池中。禁止靠近可疑的热容器。请从有防护的位置喷水以便冷却接触火场中的容器。在安全的条件下,把容器从火道中移走。

六、意外释放措施

人身防范、保护设备和应急程序: 避免吸入蒸气,避免接触皮肤和眼睛。使用防护装备控制人员接触。

环境防范措施: 隔离泄漏污染区,限制出入。清除所有点火源。立即清理所有泄漏物。

抑制和清洁的方法和材料: 小量泄漏:用蛭石或其它吸附性物质来收集并吸附少量泄漏物。擦除。收集残留物置于易燃废弃物容器。大量泄漏:在安全的前提下,阻止泄漏。可以用喷水或水雾的方法来驱散/吸收蒸气。用沙子、土或蛭石来吸收泄漏物。只能使用不产生火花的铲子和防爆设备。收集可回收的产品于贴有标签的容器中,以便回收利用。用沙子、土或蛭石来吸收残留的产品。收集固体残留物,密封于贴有标签的桶中,以便废弃处置。冲洗泄漏区域,并防止进入下水道。

七、搬运与储存

安全搬运的防范措施: 避免个体接触,包括吸入。当有接触危险时,穿戴防护服。在通风良好的区域使用。防止本品在低洼处汇集。未作空气检测,禁止进入封闭空间内。禁止吸烟、明火、热源或点火源。操作处置时,禁止进食、饮水或吸烟。抽吸或流出时,由于静电积聚,可能会发生蒸气点燃。禁止使用塑料桶。配制或倾倒产品时,金属容器应接地并进行固定。操作处置时,使用不产生火花的工具。

安全存储的条件，包括任何不相容性：采用原装容器存放在经批准的防爆区域。禁止吸烟、明火、受热或接触点火源。禁止存放在凹坑、洼地、地下室或者蒸气能够汇聚的场所。保持容器安全密封。远离不相容材料，存储于阴凉、干燥、通风良好的地方。防止容器受到物理损伤，并定期检查泄漏情况。

八、接触控制/人身保护

控制参数： /

适当的工程控制：对易燃液体，可能需要局部通风系统或工艺围栏通风系统。应使用防爆型通风设备。

个人防护措施

防护眼罩/面具：带侧框保护的安全眼镜。化学护目镜。隐形眼镜可能会造成特殊危害；软性隐形眼镜可能会吸收和富集刺激物。

皮肤防护：戴化学防护手套(如聚氯乙烯手套)。穿安全鞋或安全靴(如橡胶材料)。如果暴露严重，可能需要聚氯乙烯防护服。

呼吸系统防护：呼吸器种类和型号的选择取决于呼吸区域污染物的等级以及污染物的化学性质。

高温危险： /

九、物理及化学性质

外观（物理状态、颜色等）	无色透明液体。
气味	/
气味阈值	/
pH 值	/
熔点/凝固点	-61 °C
初始沸点和沸腾范围	153 °C
闪点	58 °C
蒸发速率	0.17 BuAc=1
易燃性（固态、气态）	易燃
上下易燃极限或爆炸极限	2.2%-15.2%
蒸气压力	0.5 @ 25 °C
蒸气密度	2.5
相对密度	0.94 @ 25 °C。
可溶性	混溶
分配系数：正辛醇/水	/
自动点火温度	445 °C
分解温度	/
粘度	/

十、稳定及反应性

反应性： /

化学稳定性：在常温下稳定。

危险反应的可能性：受热、接触明火或氧化剂，有严重的火灾危险。

应避免的条件：火星、高温、静电。

不相容材料：氧化剂、易燃或可燃物。

危险分解产物：二氧化碳 (CO₂)，一氧化碳(CO)，氮氧化物(NO_x)，有机物燃烧产生的其他典型热解产物。

十一、毒理学信息

暴露途径：吸入，食入，经皮吸收，眼睛接触。

有关物理、化学和毒理学特点的症状： /

急性毒性效应：吸入本物质在正常操作时产生的蒸气或气溶胶(烟雾、气雾)可能中毒。吸入后会导致咳嗽、咽喉刺激。皮肤接触会导致皮肤发红、刺激。眼睛接触后会导致发红、刺激。食入会导致恶心、咽喉痛、腹痛、呕吐等症状。

慢性毒性或长期毒性效应：多次或持续接触刺激物能导致结膜炎。长期或多次接触本物质可引起皮肤发炎

毒性的数值度量（如急性毒性估计值）：

吸入（鼠）LC50：1948 ppm/4H

吸入（鼠）LC50：3421 ppm/1H

经口（半致死剂量）（鼠）LD50：2000 mg/kg

经皮（半致死剂量）（鼠）LD50：>3200 mg/kg

dermal (rat) LD50：>3200 mg/kg

Inhalation (rat) LC50：1948 ppm/4H

Inhalation (rat) LC50：3421 ppm/1H

Oral (rat) LD50：2000 mg/kg

十二、生态信息

毒性： /

持久性和降解性：低。

生物累积潜力：低。

在土壤中的流动性：中等。

其它有害效应： /

十三、处置考虑

处置方法：用安全掩埋法处置。破损容器禁止重新使用，要在规定场所掩埋。

十四、运输信息

联合国编号：2265。

联合国正式运输名称：N, N-二甲基甲酰胺。

运输危险分类：3。

包装类别（如果适用）：III。

环境危险： /

用户的特殊防范措施： /

十五、管理信息

国内化学品安全法规：本化学品安全数据单遵照了以下相关国家标准：GB 16483-2008、GB 13690-2009、GB 6944-2012、GB/T 15098-2008、GB 18218-2009、GB 15258-2009、GB 190-2009、GB 191-2009、GB 12268-2008、GA 57-1993、GBZ 2-2007 以及相关法规：《铁路

危险货物运输管理规则》、《危险化学品安全管理条例》。

十六、其它信息

参考文献	联合国《关于危险货物运输的建议书·规章范本》 联合国《全球化学品统一分类和标签制度》
制表日期	2015-05-30

注 1：当产品为含有两种以上危险物质的混合物时，应依据其混合后的危险性，制作安全数据单。

注 2：制造商/供应商应根据实际情况确保安全数据单所含信息的正确性，并适时更新。

注 3：如由于产品特性而不存在或不可得某些信息时（如固体不存在沸点），应在表格中以“/”标识。

Chemical Safety Data Sheet

Section 1 IDENTIFICATION

GHS Product identifier: N,N-Dimethylformamide.

Other means of identification: /

Recommended use of the chemical and restrictions on use: /

Supplier's details: /

Emergency phone number: /

Section 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Flammable liquids Category 3

Acute toxicity(dermal) Category 4

Acute toxicity(inhalation) Category 4

Eye Damage/Irritation Category 2A.

Reproductive toxicity Category 1B

GHS Label elements, including precautionary statements:



Signal word: Danger

Hazard statement(s): Flammable liquid and vapor. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. May damage fertility or the unborn child.

Precautionary statement(s):

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/ vapors/spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood

Response:

In case of fire: Use Foam, Dry chemical powder, Carbon dioxide, Water spray or Fog to extinguish. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see next). And wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.

Storage:

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

Disposal:

Dispose of contents/container to relevant regulations.

Other hazards which do not result in classification: /

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
N,N-Dimethylformamide	68-12-2	99.98%

Section 4 FIRST AID MEASURES

Description of necessary first aid measures

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If Ingestion: Rinse mouth with water. Consult a physician.

Most important symptoms/effects, acute and delayed: /

Indication of immediate medical attention and special treatment needed, if necessary: /

Section 5 FIREFIGHTING MEASURES

Suitable extinguishing media: Use Foam, Dry chemical powder, Carbon dioxide, Water spray or fog.

Special hazards arising from the chemical: Liquid and vapour are flammable. Moderate fire hazard when exposed to heat or flame. Vapour forms an explosive mixture with air. Moderate explosion hazard when exposed to heat or flame. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO).

Special protective actions for fire-fighters: Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.

Section 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Remove all ignition sources. Clean up all spills immediately.

Methods and materials for containment and cleaning up: Minor Spills: Contain and absorb small quantities with vermiculite or other absorbent material. Wipe up. Collect residues in a flammable waste container. Major Spills: Stop leak if safe to do so. Water spray or fog may be

used to disperse /absorb vapour. Contain spill with sand, earth or vermiculite. Use only spark-free shovels and explosion proof equipment. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains.

Section 7 HANDLING AND STORAGE

Precautions for safe handling: Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Avoid smoking, naked lights, heat or ignition sources. When handling, DO NOT eat, drink or smoke. Vapour may ignite on pumping or pouring due to static electricity. DO NOT use plastic buckets. Earth and secure metal containers when dispensing or pouring product. Use spark-free tools when handling.

Conditions for safe storage, including any incompatibilities: Store in original containers in approved flame-proof area. No smoking, naked lights, heat or ignition sources. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. Keep containers securely sealed. Store away from incompatible materials in a cool, dry well ventilated area. Protect containers against physical damage and check regularly for leaks.

Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters: /

Appropriate engineering controls: For flammable liquids, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.

Individual protection measures

Eye/face protection: Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

Skin protection: Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber. PVC protective suit may be required if exposure severe.

Respiratory protection: Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

Thermal hazards: /

Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, colour etc)	Colorless transparent liquid.
Odour	/
Odour Threshold	/
pH	/
Melting point/freezing point	-61 °C
Initial boiling point and boiling range	153°C
Flash point	58°C
Evaporation rate	0.17 BuAc=1
Flammability (solid, gas)	Flammable.

Upper/lower flammability or explosive limits	2.2%-15.2%
Vapour pressure	0.5@ 25°C
Vapour density	2.5
Relative density	0.94@ 25°C.
Solubility(ies)	Miscible
Partition coefficient: n-octanol/water	/
Auto-ignition temperature	445°C
Decomposition temperature	/
Viscosity	/

Section 10 STABILITY AND REACTIVITY

Reactivity: /

Chemical stability: This material is stable in normal temperature.

Possibility of hazardous reactions: Severe fire hazard when exposed to heat, flame and/or oxidisers.

Conditions to avoid: Spark, high temperature and static electricity.

Incompatible materials: Flammable materials and oxidizers.

Hazardous decomposition products: carbon dioxide (CO₂), carbon monoxide (CO), nitrogen oxides (NO_x), other pyrolysis products typical of burning organic material.

Section 11 TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure: Inhaled, swallowed, skin, eyes.

Symptoms related to the physical, chemical and toxicological characteristics: /

Acute health effects: Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be toxic. Accidental ingestion of the material may be harmful and cause cough and throat pain. Oral intake cause headache, giddiness, vomit and fetal damage. This material may produce skin and eyes irritation.

Chronic health effects: Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic)..

Numerical measures of toxicity(such as acute toxicity estimates):

Inhalation (rat) LC50: 1948 ppm/4H

Inhalation (rat) LC50: 3421 ppm/1H

Oral (rat) LD50: 2000 mg/kg

Dermal (rat) LD50: >3200 mg/kg

Section 12 ECOLOGICAL INFORMATION

Toxicity: /

Persistence and degradability: low

Bioaccumulative potential: low

Mobility in soil: medium.

Other adverse effects: /

Section 13 DISPOSAL CONSIDERATIONS

Disposal methods: Burial in a land-fill specifically licensed to accept chemical. Reuse of broken container is forbidden.

Section 14 TRANSPORT INFORMATION

UN number: 2265.

UN proper shipping name: N,N-DIMETHYLFORMAMIDE.

Transport hazard class(es) : 3.

Packing group, if applicable: III.

Environmental hazards: /

Special precautions for user: /

Section 15 REGULATORY INFORMATION

Regulations: This safety data sheet is in compliance with the following national standards: GB 16483-2008, GB 13690-2009, GB/T 15098-2008, GB 18218-2009, GB 15258-2009, GB 6944-2012, GB 190-2009, GB 191-2009, GB 12268-2008, GA 57-1993, GBZ 2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation [Published by the Ministry of Railways, 2008], Dangerous Chemicals Safety Administrative Regulation [Published by the State Council, 2011].

Section 16 OTHER INFORMATION

References	UN Recommendations on the Transport of Dangerous Goods Model Regulations UN Globally Harmonized System of Classification and Labelling of Chemicals
Form Date	30-May.-2015

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.



N, N-二甲基甲酰胺
N, N-DIMETHYLFORMAMIDE
UN 2265