

SAFETY DATA SHEET

according to the Globally Harmonized System

ARMID DM10

Version 3

Revision Date 29.04.2020

Print Date 02.03.2021

IN / EN

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Information
Trade name : ARMID DM10

Use of the Substance/Mixture : Specific use(s): Co-solvent

Company : Nouryon
Chemicals(Ningbo) Co. Ltd.
No.1801, Mid-haitian Road, Xiepu Town
CN 315204 Ningbo City
China

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E-mail address : RegulatoryAffairs@nouryon.com
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China National Registration Center for Chemicals: T +86 532 8388 9090 / F +86 532 8378 6550

2. HAZARDS IDENTIFICATION

GHS-Classification

Acute toxicity, Category 5, Oral
Skin corrosion/irritation, Category 2
Serious eye damage/eye irritation, Category 2A
Specific target organ toxicity - single exposure, Category 3, Respiratory system,
Short-term (acute) aquatic hazard, Category 3
Long-term (chronic) aquatic hazard, Category 3

GHS-Labeling

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Hazard pictograms



Signal word

: Warning

Hazard statements

: H303 May be harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

: **Prevention:**
P261 Avoid breathing mist, vapours or spray.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

Other hazards which do not result in classification

No further data available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name : Fatty amides
Pure substance/mixture : Substance
EINECS-No. : 238-405-1

Hazardous components

Chemical name	CAS-No.	GHS Classification	Concentration[%]
N,N-Dimethyldecanamide	14433-76-2	Acute Tox. 5; H303 Skin Corr./Irrit. 2; H315 Eye Dam./Irrit. 2A; H319 STOT SE 3; H335 Aquatic Acute 3; H402 Aquatic Chronic 3; H412	>= 90 - <= 100

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
- Inhalation : If breathed in, move person into fresh air.
Consult a physician after significant exposure.
- Skin contact : Take off contaminated clothing and shoes immediately.
Wash the skin immediately with soap and water.
If skin irritation persists, call a physician.
- Eye contact : Rinse with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
Obtain medical attention.
- Ingestion : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

Notes to physician

- Symptoms : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.
- Treatment : Treat symptomatically.

5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific hazards during firefighting / Specific hazards arising from the chemical : Treat as oil fire.
Do not allow run-off from fire fighting to enter drains or water courses.
- Combustion products : Carbon oxides
Nitrogen oxides (NO_x)
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Personal precautions : Use personal protective equipment.
Wear respiratory protection.
Ensure adequate ventilation.
- Emergency measures on accidental release : Evacuate personnel to safe areas.
Only qualified personnel equipped with suitable protective equipment may intervene.
Prevent unauthorised persons entering the zone.
- Environmental precautions : Try to prevent the material from entering drains or water courses.
Discharge into the environment must be avoided.
- Methods for cleaning up /
Methods for containment : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
- Reference to other sections : For disposal considerations see section 13.

For personal protection see section 8.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : For personal protection see section 8.
Avoid formation of aerosol.
Do not breathe vapours or spray mist.
Avoid contact with skin, eyes and clothing.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Storage

- Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place.
- Other data : No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering controls

Effective exhaust ventilation system

Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Respiratory protection : In the case of vapour or aerosol formation use a respirator with an approved filter.

Hand protection : butyl-rubber

Eye protection : Tightly fitting safety goggles

Skin and body protection : Protective suit

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

Environmental exposure controls

General advice : Try to prevent the material from entering drains or water courses.
Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : liquid

Colour : yellow

Odour : amine-like

Odour Threshold : No data available

Safety data

pH : No data available

Melting point/range : -11 - -7 °C

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Boiling point/boiling range	: 291 °C
Flash point	: 100 - 199 °C
Ignition temperature	: > 100 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Flammability (liquids)	: Not classified as a flammability hazard
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapour pressure	: 0.0011 hPa at 25 °C
Relative vapour density	: No data available
Density	: 880 kg/m ³ at 20 °C
Relative density	: ca. 0.88 at 20 °C
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: 3.44 at 20 °C
Auto-ignition temperature	: 330 °C
Decomposition temperature	: No data available
Viscosity, dynamic	: ca. 5.0 mPa.s at 20 °C
Viscosity, kinematic	: 5.7 mm ² /s at 20 °C
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

10. STABILITY AND REACTIVITY

Conditions to avoid	: None known.
Materials to avoid	: None known.
Hazardous decomposition products	: No hazardous decomposition products are known.

Thermal decomposition	: No data available
Reactivity	: Stable under normal conditions.
Chemical stability	: Stable under recommended storage conditions.
Hazardous reactions	: No dangerous reaction known under conditions of normal use.

11. TOXICOLOGICAL INFORMATION

Product information:

Potential Health Effects

Inhalation	: Inhalation of aerosols may cause irritation to mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. May cause respiratory irritation.
Skin	: Causes skin irritation.
Eyes	: Causes serious eye irritation.
Ingestion	: May be harmful if swallowed.
Aggravated Medical Condition	: None known.
Symptoms of Overexposure	: The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

Toxicology Assessment

Further information	: No further data available.
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Toxicology data for the components:

Test result

Component: N,N-Dimethyldecanamide

Acute oral toxicity	: LD50: > 2,000 - 5,000 mg/kg Species: Rat Method: OECD Test Guideline 420
Acute dermal toxicity	: LD50: > 5,000 mg/kg Species: Rat Method: OECD Test Guideline 402

Skin irritation	: Species: Rabbit Result: Irritating to skin. Method: OECD Test Guideline 404
Eye irritation	: Species: Rabbit Result: Irritating to eyes. Method: OECD Test Guideline 405
Sensitisation	: Buehler Test Result: negative Method: OECD Test Guideline 406 Read-across (Analogy)
Target Organ Systemic Toxicant - Single exposure	: Exposure routes: Inhalation Target Organs: Respiratory system May cause respiratory irritation.

12. ECOLOGICAL INFORMATION

Product information:

Ecotoxicology Assessment

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

Components:

Test result

Component: N,N-Dimethyldecanamide

Ecotoxicity effects

Toxicity to fish	: LC50: > 10 mg/l Exposure time: 96 h Species: Danio rerio (zebra fish) Method: OECD Test Guideline 203 Read-across (Analogy)
Toxicity to daphnia and other aquatic invertebrates	: LC50: > 1 - 10 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Read-across (Analogy)
Toxicity to algae	: EC50: > 10 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Method: OECD Test Guideline 201 Read-across (Analogy)

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NOEC: > 1 - 10 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Method: OECD Test Guideline 201
Read-across (Analogy)

Toxicity to fish (Chronic toxicity) : NOEC: > 0.1 - 1 mg/l
Exposure time: 35 d
Species: Danio rerio (zebra fish)
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 0.1 - 1 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

Elimination information (persistence and degradability)

Bioaccumulation : Bioaccumulation is unlikely.

Mobility : Can be leached out from soil.

Biodegradability : Result: Readily biodegradable.
Method: OECD Test Guideline 301B
Read-across (Analogy)

Further information on ecology

Biochemical Oxygen Demand (BOD) : No data available

13. DISPOSAL CONSIDERATIONS

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Hazardous waste
Dispose of contents/container in accordance with local regulation.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.

14. TRANSPORT INFORMATION

International Regulations

ADR

Not regulated as a dangerous good

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Further information for transport

Not classified as dangerous in the meaning of transport regulations.

Land transportNot regulated as a dangerous good

15. REGULATORY INFORMATION**Notification status**

TCSI	: YES. On the inventory, or in compliance with the inventory
TSCA	: YES. All substances listed as active on the TSCA inventory
AICS	: YES. On the inventory, or in compliance with the inventory
DSL	: q (quantity restricted). None of the components of this product are on the Canadian DSL, but all are on the NDSL
ENCS	: YES. On the inventory, or in compliance with the inventory
ISHL	: YES. On the inventory, or in compliance with the inventory
NZIoC	: YES. On the inventory, or in compliance with the inventory
KECI	: YES. On the inventory, or in compliance with the inventory
PICCS	: NO. Not in compliance with the inventory
IECSC	: YES. On the inventory, or in compliance with the inventory

For explanation of abbreviation see section 16.

Further information : none

16. OTHER INFORMATION**Full text of H-Statements**

H303	: May be harmful if swallowed.
H315	: Causes skin irritation.
H319	: Causes serious eye irritation.
H335	: May cause respiratory irritation.
H402	: Harmful to aquatic life.
H412	: Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECS - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Further information

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 information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.