

SAFETY DATA SHEET

according to the Globally Harmonized System

ARMID DM810

Version 5

Revision Date 27.11.2017

Print Date 20.12.2019

REG_ASIA / EN

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

Product Information
Trade name : ARMID DM810

Use of the Substance/Mixture : Specific use(s): Solvent

Company : Nouryon Surface Chemistry Pte Ltd
3 Changi Business Park Vista
SG 486051 Singapore
Singapore

Telephone : +6566355100
Telefax : +6566355327
E-mail address : Regulatory.Affairs@nouryon.com
Emergency telephone number : 请参阅化学品安全技术说明书 +65 6515 1362 (Nouryon, Singapore) +31 570679211 (24 hours emergency response number)

2. HAZARDS IDENTIFICATION

GHS-Classification

Acute toxicity, Category 5, Oral
Acute toxicity, Category 5, Dermal
Skin corrosion/irritation, Category 2
Serious eye damage/eye irritation, Category 1
Specific target organ toxicity - single exposure, Category 3, Respiratory system,
Acute aquatic toxicity, Category 3

GHS-Labeling

Hazard pictograms :



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Signal word	:	Danger	
Hazard statements	:	H303 + H313 H315 H318 H335 H402	May be harmful if swallowed or in contact with skin. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Harmful to aquatic life.
Precautionary statements	:	Prevention: P261 P264 P271 P273 P280 Response: P302 + P352 P304 + P340 + P312 P305 + P351 + P338 + P310 P312 P332 + P313 Storage: P403 + P233 P405 Disposal: P501	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/ eye protection/ face protection. IF ON SKIN: Wash with plenty of water. 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. Immediately call a POISON CENTER/doctor. Call a POISON CENTER/doctor if you feel unwell. If skin irritation occurs: Get medical advice/ attention. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

No further data available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Substance
EINECS-No. : 909-125-3

Hazardous components

Chemical name	CAS-No.	GHS Classification	Concentration[%]
Reaction mass of N,N-Dimethyloctan-1-amide and N,N-Dimethyldecan-1-amide		Acute Tox. 5; H303 Acute Tox. 5; H313 Skin Corr./Irrit. 2; H315 Eye Dam./Irrit. 1; H318 STOT SE 3; H335 Aquatic Acute 3; H402	>= 90 - <= 100

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

The following substances have multiple CAS-number

Reaction mass of N,N- : 1118-92-9
Dimethyloctan-1-amide and : 14433-76-2
N,N-Dimethyldecan-1-amide

4. FIRST AID MEASURES

- General advice : Immediate medical attention is required.
Move out of dangerous area.
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.
Get medical attention immediately. Continue to rinse during transport.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
- 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.
- Combustion products : Carbon oxides
Nitrogen oxides (NOx)
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Standard procedure for chemical fires.

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.
- 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 in a 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 formation use a respirator with an approved filter.

Wear full face mask supplied with:
Gas cartridge A (organic substances, brown).

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	: liquid
Colour	: yellow
Odour	: No information available.
Odour Threshold	: No data available

Safety data

pH	: 4.8 at 1 % solution
Pour point	: ca. -19 °C
Boiling point/boiling range	: 260 - 279 °C
Flash point	: 126.5 °C at 1,013 hPa
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	: < 3 hPa at 20 °C
Relative vapour density	: No data available
Density	: ca.880 kg/m ³ at 20 °C 887 kg/m ³ at 25 °C
Relative density	: ca. 0.89 at 25 °C
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: < 3.44 Method: Calculation method
Auto-ignition temperature	: 305 °C

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at 1,013 hPa

Decomposition temperature : No data available

Viscosity, dynamic : No data available

Viscosity, kinematic : ca. 4.8 mm²/s at 25 °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 : May be harmful in contact with skin.
Causes skin irritation.

Eyes : Causes serious eye damage.

Ingestion : May be harmful if swallowed.

Aggravated Medical : None known.

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Condition
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.

Toxicology data for the components:

Test result

Component: Reaction mass of N,N-Dimethyloctan-1-amide and N,N-Dimethyldecan-1-amide

Acute oral toxicity : LD50: > 2,000 mg/kg
Species: Rat
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50: > 2,000 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: Risk of serious damage to eyes.
Method: OECD Test Guideline 405

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.

Components:

Test result

Component: Reaction mass of N,N-Dimethyloctan-1-amide and N,N-Dimethyldecan-1-amide

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Ecotoxicity effects

- Toxicity to fish : LC50: > 10 - 100 mg/l
Exposure time: 96 h
Species: Danio rerio (zebra fish)
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : LC50: > 1 - 10 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Method: OPPTS 797.1300
Read-across (Analogy)
- Toxicity to algae : EC50: > 10 - 100 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Method: OECD Test Guideline 201
- NOEC: > 1 - 10 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Method: OECD Test Guideline 201
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10: > 1 - 10 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 : No data available
- Biodegradability : Result: Readily biodegradable.
Method: OECD Test Guideline 301B

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.

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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 transport

Not regulated as a dangerous good

15. REGULATORY INFORMATION

Notification status

DSL : q (quantity restricted). This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL. N,N-Dimethyloctanamide, N,N-Dimethyldecanamide

AICS : YES. On the inventory, or in compliance with the inventory

NZIoC : YES. On the inventory, or in compliance with the inventory

ENCS : YES. On the inventory, or in compliance with the inventory

ISHL : 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

TCSI : YES. On the inventory, or in compliance with the inventory

TSCA : YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.

For explanation of abbreviation see section 16.

Further information : none

16. OTHER INFORMATION

Full text of H-Statements

H303	: May be harmful if swallowed.
H313	: May be harmful in contact with skin.
H315	: Causes skin irritation.
H318	: Causes serious eye damage.
H335	: May cause respiratory irritation.
H402	: Harmful to aquatic life.

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; CPR - Controlled Products Regulations; 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; IECSC - 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.