

according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 1 of 12

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

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

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH

ACD

Street: Stempelstraße 6
Place: D-47167 Duisburg

Telephone: 0203/5194-0 Telefax: 0203/5194-290

E-mail: info@analytichem.de

Contact person: Abteilung Produktsicherheit Telephone: 0203/5194-107/117

E-mail: produktsicherheit@analytichem.de

Internet: www.analytichem.de

Responsible Department: Abteilung Produktsicherheit

1.4. Emergency telephone For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

number: Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada:

1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls

accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Liq. 3; H226 Acute Tox. 4; H312 Acute Tox. 4; H332 Eye Irrit. 2; H319 Repr. 1B; H360D

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

N,N-dimethylformamide

Signal word: Danger

Pictograms:





Print date: 26.01.2024



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 2 of 12

Hazard statements

H226 Flammable liquid and vapour.

H312+H332 Harmful in contact with skin or if inhaled.

H319 Causes serious eye irritation. H360D May damage the unborn child.

Precautionary statements

P201 Obtain special instructions before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P403+P235 Store in a well-ventilated place. Keep cool.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Relevant ingredients

CAS No	Chemical name	Chemical name			
	EC No	EC No Index No REACH No			
	Classification (Regulation (EC) No 1272/2008)				
68-12-2	N,N-dimethylformamide	N,N-dimethylformamide			
	200-679-5	200-679-5 616-001-00-X 01-2119475605-32			
	Flam. Liq. 3, Repr. 1B, Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2; H226 H360D H332 H312 H319				

Full text of H and EUH statements: see section 16.

Specific Conc. Limits. M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. I	Limits, M-factors and ATE	
68-12-2	200-679-5	N,N-dimethylformamide	75 - < 80 %
	inhalation: LC50 = > 5,85 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 3160 mg/kg; oral: LD50 = 3010 mg/kg		

Further Information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: N,N-dimethylformamide; dimethyl formamide

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

After contact with skin

Wash immediately with: Water



according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 3 of 12

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water.

Observe risk of aspiration if vomiting occurs.

Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Combustible liquids

Hazardous combustion products

In case of fire may be liberated: Carbon dioxide (CO2), Carbon monoxide

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Heating causes rise in pressure with risk of bursting.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Keep away from sources of ignition - No smoking.

This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).

Take action to prevent static discharges.

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

Print date: 26.01.2024



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 4 of 12

For emergency responders

Precautionary statements For emergency responders: Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

Danger of explosion

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Keep container tightly closed.

Use personal protection equipment. Use extractor hood (laboratory).

Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation.

Advice on protection against fire and explosion

Take action to prevent static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.

Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used. Store in a place accessible by authorized persons only.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Further information on storage conditions

Keep cool. Protect from sunlight.

7.3. Specific end use(s)

Laboratory chemicals



according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 5 of 12

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
68-12-2	Dimethylformamide	5	15		TWA (8 h)	
		10	30		STEL (15 min)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
68-12-2	N,N-Dimethylformamide	N-Methylformamide	15 mg/L	Urine	Post shift

DNEL/DMEL values

CAS No	Substance					
DNEL type	DNEL type		Effect	Value		
68-12-2	N,N-dimethylformamide					
Worker DNEL,	long-term	inhalation	systemic	6 mg/m³		
Worker DNEL,	long-term	dermal	systemic	1,1 mg/kg bw/day		
Consumer DNI	EL, long-term	inhalation	systemic	1,1 mg/m³		
Consumer DNI	EL, long-term	oral	systemic	0,16 mg/kg bw/day		
Worker DNEL,	acute	inhalation	local	30 mg/m³		
Worker DNEL, acute		dermal	systemic	26,3 mg/kg bw/day		
Consumer DNI	EL, acute	inhalation	systemic	30 mg/m³		
Worker DNEL,	long-term	inhalation	local	15 mg/m³		
Worker DNEL,	acute	inhalation	systemic	30 mg/m³		
Consumer DNI	EL, acute	oral	systemic	5,94 mg/kg bw/day		
Consumer DNI	EL, acute	inhalation	local	30 mg/m³		
Consumer DNEL, acute		dermal	systemic	15,8 mg/kg bw/day		
Consumer DNI	EL, long-term	dermal	systemic	1,98 mg/kg bw/day		
Consumer DNI	EL, long-term	inhalation	local	15 mg/m³		



according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 6 of 12

PNEC values

CAS No	Substance	
Environment	Environmental compartment	
68-12-2	N,N-dimethylformamide	
Freshwater		30 mg/l
Freshwater (intermittent releases)		30 mg/l
Marine water		3 mg/l
Freshwater sediment		111 mg/kg
Marine sediment		11,1 mg/kg
Micro-organisms in sewage treatment plants (STP)		44 mg/l
Soil		56,97 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Face protection umbrella

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 898 Butoject®

Suitable material: Butyl caoutchouc (butyl rubber) 0,7 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 890 Vitoject® Suitable material: FKM (fluoro rubber) 0,7 mm

Wearing time with occasional contact (splashes): > 240 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Take off immediately all contaminated clothing and wash it before reuse.

Wear fire resistant or flame retardant clothing.

Wash hands and face before breaks and after work and take a shower if necessary.

Draw up and observe skin protection programme.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

Environmental exposure controls

Do not allow to enter into surface water or drains.

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Danger of explosion



according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 7 of 12

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: clear
Odour: like: Amines
Odour threshold: No data available

Melting point/freezing point:

No data available
Boiling point or initial boiling point and

152 °C

boiling range:

No data available Flammability: Lower explosion limits: No data available Upper explosion limits: No data available 58 °C Flash point: No data available Auto-ignition temperature: No data available Decomposition temperature: 7.0 pH-Value (at 20 °C): No data available Viscosity / kinematic: Water solubility: No data available

Solubility in other solvents

No data available

Dissolution rate: No data available Partition coefficient n-octanol/water: No data available Dispersion stability: No data available Vapour pressure: No data available Vapour pressure: No data available Density: No data available Relative density: No data available No data available Bulk density: No data available Relative vapour density: Particle characteristics: No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Sustaining combustion:

No data available

Self-ignition temperature

Solid: No data available
Gas: No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate: No data available Solvent separation test: No data available Solvent content: No data available Solid content: No data available Sublimation point: No data available Softening point: No data available Pour point: No data available No data available Viscosity / dynamic: No data available No data available Flow time:



according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 8 of 12

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapours may form explosive mixtures with air.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Oxidising agent

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.6. Hazardous decomposition products

SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

Harmful in contact with skin.

Harmful if inhaled.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) 1467 mg/kg; ATE (inhalation vapour) 14,67 mg/l; ATE (inhalation dust/mist) 2,000 mg/l

CAS No	Chemical name							
	Exposure route	Dose		Species	Source	Method		
68-12-2	N,N-dimethylformamide							
	oral	LD50 mg/kg	3010	Rat	also cited in OECD SIDS Dimethylformamid	OECD Guideline 401		
	dermal	LD50 mg/kg	> 3160	Rabbit	Study report (1978)	OECD Guideline 405		
	inhalation (4 h) vapour	LC50 mg/l	> 5,85	Rat	also cited in OECD SIDS Dimethylformamid	OECD Guideline 403		
	inhalation dust/mist	ATE	1,5 mg/l					

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction



according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 9 of 12

May damage the unborn child. (N,N-dimethylformamide)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

There are no data available on the mixture itself.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

Endocrine disrupting properties

There are no data available on the mixture itself.

Other information

There are no data available on the mixture itself.

Further information

There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name	Chemical name							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method		
68-12-2	N,N-dimethylformamide								
	Acute fish toxicity	LC50 mg/l	7100	96 h	Lepomis macrochirus	REACh Registration Dossier	other: US EPA guideline 660/3-75-009		
	Acute algae toxicity	ErC50 mg/l	> 1000	72 h	Desmodesmus subspicatus	REACh Registration Dossier	other: DIN 38412, part 9, "Determination		
	Acute crustacea toxicity	EC50 mg/l	13100	48 h	Daphnia magna	REACh Registration Dossier	OECD Guideline 202		
	Fish toxicity	NOEC mg/l	> 102	21 d	Oryzias latipes	REACh Registration Dossier	OECD Guideline 204		
	Algae toxicity	NOEC	940 mg/l	14 d	Raphidocelis subcapitata	Bull. Environ. Contam. Toxicol. 31, 98-1	other: EPA-600/9-78-01 8		
	Crustacea toxicity	NOEC mg/l	1500	21 d	Daphnia magna	REACh Registration Dossier	Semi-Static toxicity test		

12.2. Persistence and degradability



according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 10 of 12

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
68-12-2	N,N-dimethylformamide	-0,85

BCF

CAS No	Chemical name	BCF	Species	Source
68-12-2	N,N-dimethylformamide	0,3 - 1,2	Cyprinus carpio	REACh Registration D

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Do not allow to enter into surface water or drains.

Further information

There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 2265

14.2. UN proper shipping name: N,N-DIMETHYLFORMAMIDE

14.3. Transport hazard class(es): 3 Ш 14.4. Packing group: Hazard label: 3 Classification code: F1 Limited quantity: 5 I Excepted quantity: F1 Transport category: 3 Hazard No: 30 Tunnel restriction code: D/F

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 2265

14.2. UN proper shipping name: N,N-DIMETHYLFORMAMIDE



according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 11 of 12

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3Classification code:F1Limited quantity:5 LExcepted quantity:E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 2265

14.2. UN proper shipping name: N,N-DIMETHYLFORMAMIDE

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3Special Provisions:-Limited quantity:5 LExcepted quantity:E1EmS:F-E. S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 2265

14.2. UN proper shipping name: N,N-DIMETHYLFORMAMIDE

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3Limited quantity Passenger:10 LPassenger LQ:Y344Excepted quantity:E1

IATA-packing instructions - Passenger:355IATA-max. quantity - Passenger:60 LIATA-packing instructions - Cargo:366IATA-max. quantity - Cargo:220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

SECTION 15: Regulatory information

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

EU regulatory information

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):

N,N-dimethylformamide

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 30, Entry 40

Information according to Directive P5c FLAMMABLE LIQUIDS

2012/18/EU (SEVESO III):

National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 12.



according to Regulation (EC) No 1907/2006

Lösemittelgemisch N,N-Dimethylformamid / Wasser 75: 25 volumetrisch gemischt

Revision date: 26.01.2024 Product code: 31949 Page 12 of 12

Abbreviations and acronyms

Flam. Liq: Flammable liquid Acute Tox: Acute toxicity Eye Irrit: Eye irritation Repr: Reproductive toxicity

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure		
Flam. Liq. 3; H226	On basis of test data		
Acute Tox. 4; H312	Calculation method		
Acute Tox. 4; H332	Calculation method		
Eye Irrit. 2; H319	Calculation method		
Repr. 1B; H360D	Calculation method		

Relevant H and EUH statements (number and full text)

H226 Flammable liquid and vapour. H312 Harmful in contact with skin.

H312+H332 Harmful in contact with skin or if inhaled.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H360D May damage the unborn child.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)