SAFETY DATA SHEET



according to Regulation (EC) No. 1907/2006

Dissolvine D-40

Version 1 Revision Date 10.12.2015 Print Date 21.06.2016 DE / EN

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name : Dissolvine D-40

Chemical characterization : Diethylenetriaminepentaacetic acid, pentasodium salt, 40%

aqueous solution

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

Use of the : Specific use(s): Chelating agent

Substance/Mixture

Specific use(s): Refer to attached exposure

scenario Annex.

1.3 Details of the supplier of the safety data sheet

Company : Interlabshop BV

Lage brink 23, 7317BD

Apeldoorn

Telephone : +3155-5215016

Telefax

E-mail address : Labshop@labshop.nl

1.4 Emergency telephone number

Emergency telephone : 24 hours: 112

number

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Corrosive to metals, 1, H290 Acute toxicity, 4, H332 Skin irritation, 2, H315

Eye irritation, 2, H319

Reproductive toxicity, 2, H361fd

Specific target organ toxicity - repeated exposure, 2, H373

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

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Pictogram :







Signal word : Warning

Hazard statements : H290 May be corrosive to metals.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H361fd Suspected of damaging fertility.

Suspected of damaging the unborn

child.

H373 May cause damage to organs through

prolonged or repeated exposure if

inhaled.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.
P260 Do not breathe mist, vapours or spray.
P280 Wear protective gloves/ eye protection/

face protection.

P281 Use personal protective equipment as

required.

Response:

advice/ attention.

P337 + P313 If eye irritation persists: Get medical

advice/ attention.

Hazardous components which must be listed on the label:

Diethylenetriaminepentaacetic acid, pentasodium salt 140-01-2

2.3 Other hazards

No further data available.

PBT and vPvB assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous substance

Chemical Name	PBT vPvB OEL	CAS-No. EC-No. REACH No.	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Diethylenetriaminepentaacetic acid, pentasodium salt		140-01-2 205-391-3 01-2119474445-33	Acute Tox. 4; H332 Repr. 2; H361fd STOT RE 2; H373	40 - 50
Sodium hydroxide		1310-73-2 215-185-5 01-2119457892-27	Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318	0,5 - 2

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

Status : Not applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

If inhaled : If breathed in, move person into fresh air.

Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Rinse immediately with plenty of water. If skin irritation persists, call a physician.

In case of eye contact : Rinse with plenty of water.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

Obtain medical attention.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

Never give anything by mouth to an unconscious person.

Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : The symptoms and effects are as expected from the hazards

as shown in section 2. No specific product related symptoms

are known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting / Specific hazards arising from the chemical

: Water spray may be ineffective unless used by experienced

firefighters.

Do not allow run-off from fire fighting to enter drains or water

courses.

Combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment

for firefighters

Further information

: In the event of fire, wear self-contained breathing apparatus.

: 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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Wear respiratory protection. Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and materials for containment and cleaning up

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.

6.4 Reference to other sections

Additional advice : For personal protection see section 8.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.

Avoid formation of aerosol.

Do not breathe vapours or spray mist.

Smoking, eating and drinking should be prohibited in the

application area.

Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national

regulations.

Avoid contact with skin, eyes and clothing.

Advice on protection against

fire and explosion

: Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

areas and containers

: Prevent unauthorized access.

Keep container tightly closed in a dry and well-ventilated

place

Store in closed dark containers made of anti-corrosive

material.

German storage class : Non Combustible Liquids

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Refer to attached exposure scenario Annex.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
Diethylenetriaminepentaacetic acid, pentasodium salt	Workers	Inhalation	Long-term systemic effects	1,5 mg/m3
Sodium hydroxide	Workers	Inhalation	Long-term local effects	1,0 mg/m3
	Consumers	Inhalation	Long-term local effects	1,0 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name Livironniental Compartment value		Substance name		Environmental Compartment	Value
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Diethylenetriaminepentaacetic acid, pentasodium salt	Fresh w ater	6,4 mg/l
	Marine w ater	0,64 mg/l
	Intermittent water	3,1 mg/l
	Sew age treatment plant	51 mg/l
	Fresh w ater sediment	25,1 mg/kg dry w eight
	Marine sediment	2,51 mg/kg dry w eight
	Soil	1,26 mg/kg dry w eight

8.2 Exposure controls

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.

Filter A

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 : Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform

respective authorities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Form : liquid

Colour : light yellow

Odour : Slightly ammonia like

Odour Threshold : not determined

Safety data

pH : 11 - 12 1% (water)

Melting point : Not applicable

Boiling point/boiling range : 105 - 110 °C

Flash point : not (in)flammable Product is not flammable (aqueous)

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : Not classified as a flammability hazard

Lower explosion limit : Not applicable

Upper explosion limit : Not applicable

Vapour pressure : similar to water

Relative vapour density : similar to water

Relative density : 1,15 - 1,5

Bulk density : Not applicable

Water solubility : completely miscible

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

: log Pow: < 0

Auto-ignition temperature : Not applicable

Decomposition temperature : No data available

Viscosity, dynamic : 20 - 150 mPa.s at 20 °C

Viscosity, kinematic : 10 - 140 mm2/s at 20 °C

Explosive properties : Not explosive

Oxidizing properties : Not classified as oxidising.

9.2 Other information

Corrosive to metals : Corrosive to metals

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

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Aluminium

Zinc

Copper alloys Copper Nickel

10.6 Hazardous decomposition products

Hazardous decomposition

: Carbon oxides

products

nitrogen oxides (NOx)

Thermal decomposition : No data available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product information:

Further information : Suspected of damaging fertility or the unborn child.

Test result

Acute oral toxicity : Acute toxicity estimate: > 2 000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 3,75 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Toxicology data for the components:

Diethylenetriaminepentaacetic acid, pentasodium salt

Acute toxicity:

Acute oral toxicity : LD0: > 5 000 mg/kg

Species: Rat

Method: OECD Test Guideline 401

Literature data.

Acute inhalation toxicity : LC50 :> 1 - 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Acute toxicity estimate

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Literature data.

Skin corrosion/irritation : Species: Rabbit

Result: No skin irritation

Method: OECD Test Guideline 404

Exposure time: 4 h Literature data.

Serious eye damage/eye

irritation

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Exposure time: 24 h Literature data.

Respiratory or skin

sensitisation

: Buehler Test

Species: Guinea pig

Result: Does not cause skin sensitisation. Method: OECD Test Guideline 406

Literature data.

Germ cell mutagenicity

Genotoxicity in vitro

: Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

Literature data.

CMR effectsReproductive

toxicity

Suspected of damaging fertility. Suspected of damaging the

unborn child., Suspected human reproductive toxicant

Reproductive : Species: Rat

toxicity/Development/Teratog

enicity

Application Route: Oral

General Toxicity Maternal: No observed adverse effect level:

400 mg/kg bw/day

Teratogenicity: No observed adverse effect level: 100 mg/kg

bw/day

Method: OECD Test Guideline 414

GLP: yes Literature data.

STOT - repeated exposure

: Exposure routes: Inhalation

May cause damage to organs through prolonged or repeated

exposure.

Sodium hydroxide

Acute toxicity:

Skin corrosion/irritation : Result: Causes severe burns.

Serious eye damage/eye

irritation

: Result: Risk of serious damage to eyes.

Respiratory or skin

sensitisation

: Result: Does not cause skin sensitisation.

Germ cell mutagenicity

CMR effects Mutagenicity : In vivo tests did not show mutagenic effects, Tests on

bacterial or mammalian cell cultures did not show mutagenic

effects.

Genotoxicity in vitro : In vitro tests did not show mutagenic effects

SECTION 12: ECOLOGICAL INFORMATION

Product information:

Ecotoxicology Assessment

Additional ecological

: None known.

information 12.1 Toxicity

Components:

Ecotoxicology Assessment

Sodium hydroxide

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Test result

Diethylenetriaminepentaacetic acid, pentasodium salt

Toxicity to fish : NOEC: 1 000 mg/l

Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout)

Method: OECD Test Guideline 203

Literature data.

Toxicity to daphnia and other

aquatic invertebrates

: LC50: 245 mg/l Exposure time: 48 h

Species: Daphnia (water flea)

Method: OECD Test Guideline 202

Literature data.

Toxicity to algae : NOEC: 400 mg/l

Exposure time: 23 d

Species: Scenedesmus quadricauda (Green algae)

Literature data.

Read-across from supporting substance (structural analogue

or surrogate).

Toxicity to bacteria : EC50: > 500 mg/l

Exposure time: 30 min Species: activated sludge

Method: OECD Test Guideline 209

Literature data.

Toxicity to fish (Chronic

toxicity)

: NOEC: 100 mg/l Exposure time: 28 d

Test Type: semi-static test

Literature data.

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Toxicity to daphnia and other : NOEC: 67 mg/l aquatic invertebrates Exposure time: 18 d

(Chronic toxicity) Species: Daphnia (water flea)

Method: OECD Test Guideline 211

Literature data.

Sodium hydroxide

Toxicity to daphnia and other : EC50: 40,4 mg/l aquatic invertebrates Exposure time: 48 h

Species: Ceriodaphnia (water flea)

Test Type: Immobilization

12.2 Persistence and degradability

Product information : No information available.

Components:

Diethylenetriaminepentaacetic acid, pentasodium salt

Biodegradability : Result: Not readily biodegradable.

Method: OECD Test Guideline 301F

GLP: yes Literature data.

Sodium hydroxide

Biodegradability : Result: Not applicable

12.3 Bioaccumulative potential

Product information : No information available.

Components: Sodium hydroxide

Bioaccumulation : Does not bioaccumulate.

12.4 Mobility in soil

Product information : No information available.

Components: Sodium hydroxide

Mobility : Can be leached out from soil.

Distribution among : Transport to air is not expected.

environmental compartments

12.5 Results of PBT and vPvB assessment

Product information:

PBT and vPvB assessment This substance/mixture contains no components considered

> to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

Components: Sodium hydroxide

PBT and vPvB assessment : This substance is not considered to be a PBT (Persistent,

Bioaccumulation, Toxic)

This substance is not considered to be vPvB (very Persistent

nor very Bioaccumulating)

12.6 Other adverse effects

Product information: No information available.

Components: Sodium hydroxide

Biochemical Oxygen : No data available

Demand (BOD)

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.

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.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

 ADN
 : UN 3267

 ADR
 : UN 3267

 RID
 : UN 3267

 IMDG-Code
 : UN 3267

 IATA-DGR
 : UN 3267

14.2 Proper shipping name

ADN : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

(Diethylenetriaminepentaacetic acid, pentapotassium salt)

ADR : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

(Diethylenetriaminepentaacetic acid, pentapotassium salt)

RID : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

(Diethylenetriaminepentaacetic acid, pentapotassium salt)

IMDG-Code : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

(Diethylenetriaminepentaacetic acid, pentapotassium salt)

IATA-DGR : Corrosive liquid, basic, organic, n.o.s.

(Diethylenetriaminepentaacetic acid, pentapotassium salt)

14.3 Transport hazard class

 ADN
 : 8

 ADR
 : 8

 RID
 : 8

 IMDG-Code
 : 8

 IATA-DGR
 : 8

14.4 Packing group

ADN

Packing group : III
Classification Code : C7
Hazard Identification Number : 80
Labels : 8

ADR

Packing group : III
Classification Code : C7
Hazard Identification Number : 80
Labels : 8
Tunnel restriction code : (E)

RID

Packing group : III
Classification Code : C7
Hazard Identification Number : 80
Labels : 8

IMDG-Code

Packing group : III Labels : 8

EmS Code : F-A, S-B

IATA-DGR

Packing instruction (cargo : 856

aircraft)

Packing instruction : 852

(passenger aircraft)

Packing instruction (LQ) : Y841
Packing group : III
Labels : 8

14.5 Environmental hazards

ADN

Environmentally hazardous : no

ADR

Environmentally hazardous : no

rid

Environmentally hazardous : no

IMDG-Code

Marine pollutant : no

IATA-DGR

Environmentally hazardous : no

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

SECTION 15: REGULATORY INFORMATION

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

Major Accident Hazard

Legislation

: Seveso Directive 2012/18/EU Not applicable

Water contaminating class

(Germany)

TA Luft List (Germany)

: WGK 2 water endangering

: • Total dust: Not applicable

Inorganic substances in powdered form: Not applicable
 Inorganic substances in vapour or gaseous form: Not

applicable

Organic Substances: Not applicableCarcinogenic substances: Not applicable

• Mutagenic: Not applicable

• Toxic to reproduction: Not applicable

Notification status

TSCA: YES. All chemical substances in this product are either listed on the

TSCA Inventory or in compliance with a TSCA Inventory exemption.

DSL YES. All components of this product are on the Canadian DSL **AICS** YES. On the inventory, or in compliance with the inventory : NO. On the inventory, or in compliance with the inventory **NZloC** 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 **PICCS** : YES. On the inventory, or 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

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

This product is to be considered as a preparation according to EU-legislation.

15.2 Chemical Safety Assessment

Product information : No information available.

Diethylenetriaminepentaaceti c acid, pentasodium salt

: A Chemical Safety Assessment has been carried out for this

substance.

Sodium hydroxide : A Chemical Safety Assessment has been carried out for this

substance.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H290 : May be corrosive to metals.

H314 : Causes severe skin burns and eye damage.

H315 : Causes skin irritation.

H318 : Causes serious eye damage. H319 : Causes serious eye irritation.

H332 : Harmful if inhaled.

H361fd : Suspected of damaging fertility. Suspected of damaging the

unborn child.

H373 : May cause damage to organs through prolonged or repeated

exposure if inhaled.

Classification procedure:

Corrosive to metals, 1, H290, On basis of test data.

Acute toxicity, 4, H332, Calculation method Skin irritation, 2, H315, Calculation method Eye irritation, 2, H319, Calculation method

Reproductive toxicity, 2, H361fd, Calculation method

Specific target organ toxicity - repeated exposure, 2, H373, Calculation method

Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM -American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; DIN - Standard of the German Institute for Standardisation: ECHA - European Chemicals Agency: EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; 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; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TRGS - Technical Rule for Hazardous Substances; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China: ENCS - Existing and New Chemical Substances (Japan): ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

Further information

Dissolvine D-40

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