

Safety Data Sheet

According to Regulation (EC) No 1907/2006, Annex II,

Amended by COMMISSION REGULATION (EU) 2020/878,

Amended by COMMISSION DELEGATED REGULATION (EU) 2023/707,

According to REGULATION (EC) No 1272/2008

FE Detergent

Version 1.0

Issue date: 22-01-2024

Revision date: 22-01-2024

SDS Record Number: CSSS-TCO-010-158465

Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name: Determinand cleaning liquid
Additional identification: Nanoform is NOT covered by this SDS.
UFI: N/A
Identification of the product: See section 3
Index Number: See section 3
REACH registration No.: See section 3

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

1.2.1 Identified uses:

It is used for cleaning the reaction system during the detection process to facilitate in vitro detection of the substance to be tested, excluding cleaning liquid used solely for instrument cleaning.

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): -
Supplier(Manufacturer): DIRUI INDUSTRIAL CO., LTD.
Address: 95 Yunhe Street, New & High Tech. Development Zone Changchun, Jilin
130012 P.R. China
Contact person(E-mail): dirui@dirui.com.cn
Telephone: +86-431-85100409
Fax: +86-431-85172581

1.4 Emergency telephone Number:

+86-431-85100409

Only available during office hours (8:00a.m.-16:30p.m.)

Available outside office hours?

YES

☐

NO

X

Section 2 Hazards identification

2.1 Classification of the substance or mixture:

2.1.1 Classification of the mixture:

The mixture is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Aquatic Acute 1	H400

Product name: Determinand cleaning liquid
SDS EU

Version #: 1.0

Issue date: 22-01-2024.

Revision date: 22-01-2024.

1 / 8

For full text of H- phrases: see section 2.2.

2.2 Label elements:

Hazard pictogram(s):



Signal word:

Warning

Hazard statement(s):

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P264: Wash hands thoroughly after handling.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352: IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313: If skin irritation occurs: Get medical advice/attention.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P362 + P364: Take off contaminated clothing and wash it before reuse.

P391: Collect spillage.

P501: Dispose of contents/container in accordance with local regulations.

Supplemental Hazard information (EU)

Not applicable.

2.3 Other hazards:

The mixture does not contain PBT/vPvB substance.

The mixture does not contain endocrine disruptor.

Section 3 Composition/information on ingredients

Substance/Mixture:

Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Classification	Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE)
Purified water	N/A	7732-18-5	231-791-2	96.60%	Not Classified	N/A
Solution of sodium hypochlorite	N/A	7681-52-9	231-668-3	2.50%	H314 1B H318 H400 H410 EUH031	EUH031: C $\geq$ 5 % M=10 M(Chronic)=1
Sodium chloride	N/A	7647-14-5	231-598-3	0.90%	Not Classified	N/A

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

If breathed in, remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical attention.

Product name: Determinand cleaning liquid

SDS EU

Version #: 1.0

Issue date: 22-01-2024.

Revision date: 22-01-2024.

2 / 8

4.1.2 In case of skin contact:

Wash thoroughly with soap and water. Get medical attention in the unlikely event that irritation persists.

4.1.3 In case of eyes contact:

Flush with running water for at least 15 minutes. If irritation persists get medical attention.

4.1.4 In case of ingestion:

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Causes skin irritation. Causes serious eye irritation.

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

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

Use extinguishing agents appropriate for surrounding fire.

Unsuitable extinguishing media:

Not available.

5.2 Special hazards arising from the substance or mixture

No specific fire or explosion hazard. In case of fire, the following can be released: carbon oxides, chloride, metal oxide.

5.3 Advice for firefighters:

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Wear chemical resistant oversuit. Cool containers / tanks with water spray.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.1.2 For emergency responders:

Avoid skin and eye contact. Refer to section 8 of SDS for personal protection details.

6.2 Environmental precautions:

Avoid disposing into drainage/sewer system or directly into the aquatic environment.

6.3 Methods and material for containment and cleaning up:

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections:

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Ensure good ventilation/exhaustion at the workplace. Wash thoroughly after handling.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

Refrigerated storage. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s):

Not applicable.

Section 8 Exposure controls/personal protection

Product name: Determinand cleaning liquid

SDS EU

Version #: 1.0

Issue date: 22-01-2024.

Revision date: 22-01-2024.

3 / 8

8.1 Control parameters:

8.1.1 Occupational exposure limits:

Country	Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		
				ppm	mg/m ³	ppm	mg/m ³	Note
Latvia	Sodium chloride	231-598-3	7647-14-5	-	5	-	-	-

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection: Safety glasses.

Skin protection

Hand protection: Handle with gloves.

Body protection: Wear suitable protective clothing to prevent skin exposure.

Respiratory protection: Suitable respiratory protective device recommended.

Thermal hazards: Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls: Avoid discharge into the environment.
According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical state:	Liquid
Colour:	Not available
Odour:	Not available
Odour threshold:	Not available
pH:	Not available
Melting point/freezing point (°C):	801 °C (CAS#7647-14-5)
Boiling point or initial boiling point and boiling range (°C):	Not available
Flash point (°C):	Not available
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (gas, liquid, solid):	Not available
Ignition temperature (°C):	Not available
Lower and upper explosion limit:	Not available
Vapour pressure (20°C):	Not available
Relative vapour density:	Not available
Relative Density (g/cm³):	2.16 (25°C)(CAS#7647-14-5)
Bulk density (kg/m³):	Not available
Solubility in water (g/l, 20°C):	317 g/L(CAS#7647-14-5)
Solubility in other polar and non-polar solvents (g/l, 20°C):	Not available
Partition coefficient n-octanol/water (log Po/w, 20°C):	Not available

Product name: Determinand cleaning liquid
SDS EU

Version #: 1.0

Issue date: 22-01-2024.

Revision date: 22-01-2024.

4 / 8

Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Kinematic viscosity (mm ² /s):	Not available
Particle characteristics:	Not applicable
Explosive properties:	Not available
Oxidising properties:	Not available

9.2. Other information:

Fat solubility(solvent-oil to be specified)	Not available
etc:	
Surface tension:	73.03 mN/m (23°C)(CAS#7647-14-5)
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

Section 10 Stability and Reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known.
10.4 Conditions to avoid:	Incompatible materials.
10.5 Incompatible materials:	Strong oxidizing agents.
10.6 Hazardous decomposition products:	Carbon oxides, chloride, metal oxide.

Section 11 Toxicological information

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

Acute toxicity:	
ATE _{mix} (oral):	Not available
ATE _{mix} (inhalation):	Not available
ATE _{mix} (Dermal):	Not available
Sodium chloride (CAS#7647-14-5)	
LD50(Oral, Rat):	3550 mg/kg bw male
LC50(Inhalation, Rat):	Not available
LD50(Dermal, Rabbit):	> 10000 mg/kg bw
Skin corrosion/irritation:	Causes skin irritation.
Serious eye damage/irritation:	Causes serious eye irritation.
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

11.2 Information on other hazards

Endocrine disrupting properties	The mixture does not contain endocrine disruptor.
Other information	Not applicable

Section 12 Ecological information

12.1 Toxicity:

Sodium chloride (CAS#7647-14-5)

Acute (short-term) toxicity:

LC50(96h, Fish): 5840 mg/L

LC50(48h, Crustacea): 874 mg/L

EC50(72h, Algae/aquatic plants): Not available

Chronic (long-term) toxicity:

NOEC(Fish): Not available

NOEC(Crustacea): Not available

EC50(Algae/aquatic plants): Not available

12.2 Persistence and degradability: Not available.

12.3 Bioaccumulative potential: Not available.

12.4 Mobility in soil: Not available.

12.5 Results of PBT and vPvB assessment: The mixture does not contain PBT / vPvB substance.

12.6 Endocrine disrupting properties: The mixture does not contain endocrine disruptor.

12.7 Other adverse effects: Not available.

12.8 Additional information: Not available.

Section 13 Disposal considerations

13.1 Waste treatment methods: Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible, otherwise incineration is the recommended method of disposal. Empty containers may contain hazardous residues. Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

Section 14 Transport Information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N. O. S.(Solution of sodium hypochlorite)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N. O. S.(Solution of sodium hypochlorite)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N. O. S.(Solution of sodium hypochlorite)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N. O. S.(Solution of sodium hypochlorite)
14.3 Transport hazard class(es)	9	9	9	9
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes	Yes	Yes	Yes

Product name: Determinand cleaning liquid
SDS EU

Version #: 1.0

Issue date: 22-01-2024.

Revision date: 22-01-2024.

6 / 8

14.6 Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
14.7 Maritime transport in bulk according to IMO instruments	IBC03	IBC03	IBC03	IBC03

Section 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:	
Relevant information regarding authorization:	Not applicable.
Relevant information regarding restriction:	Not applicable.
Other EU regulations:	Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.
Other National regulations:	Not applicable
15.2 Chemical Safety Assessment	YES ☐ NO ☒

Section 16 Other information

16.1 Indication of changes:
Version 1.0 Amended by (EU) 2020/878, (EU) 2023/707
16.2 Abbreviations and acronyms:
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: Code international maritime dangerous goods code
ICAO: International Civil Aviation Organization
IATA: International Air Transport Association
UFI: Unique Formula Identifier
LC50: median lethal concentration
EC50: The effective concentration of substance that causes 50% of the maximum response.
NOEC: No Observed Effect Concentration
DNEL: derived no-effect level
PNEC: predicted no-effect concentration

16.3 Key literature references and sources for data
ECHA Registered substances data

16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No. 1272/2008		Classification procedure
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 2	H411	Calculation method

16.5 Relevant H-statements (number and full text):
H314: Causes severe skin burns and eye damage
H315: Causes skin irritation.
H318: Causes serious eye damage
H319: Causes serious eye irritation.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
H411: Toxic to aquatic life with long lasting effects.

16.6 Training instructions:

Not applicable.

16.7 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.8 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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