SAFETY DATA SHEET

According to regulations (CE) No. 1907/2006 and 2015/830

Revision date : 04/10/2016 Version 16.4

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

1.1 Product identifier

Catalogue N: **938**

Product name: **Phenolphthalein**

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

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

Identified uses: Reagent for analysis

1.3 Details of the supplier of the safety data sheet

Company: Laboratoires Dujardin-Salleron 37210 Noizay France Phone +33 (0)2 47 25 58 25
E-mail : info@dujardin-salleron.com - site : www.dujardin-salleron.com

1.4 Emergency telephone number **France :** INRS : +33 (0)1 45 42 59 59

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

Classification (Regulation (EC) N° 1272/2008)

Flammable liquid, category 2, H225

Carcinogenicity, category 1B, H350

Germ cell mutagenicity, category 2, H341

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

2.2 Label elements

Labeling (Regulation (CE) N° 1272/2008)

Hazard pictograms

Signal words

Danger

Hazard statements

H225 Highly flammable liquid and vapor.

H350 May cause cancer.

H341 Suspected of causing genetic defects.

Precautionary statements response.

P201 Obtain special instructions before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P281 Use personal protective equipment as required.

P308+313 IF exposed or concerned: get medical advice/attention.

2.3 Other hazards

None to our knowledge in normal use.

SECTION 3. Composition/informations on ingredients

Chemical nature: *Aqueous solution*

3.1 Substance: not applicable

3.2 Mixture:

Hazardous components (REGULATION (EC) No N° 1272/2008)

Chemical name (Concentration):

Phenolphthalein (≈1%)

N°CAS	N° CE	N° REACH	Classification
77-09-8	201-004-7	01-2119498295-24 0000	Carcinogenicity, category 1B, H350 Germ cell mutagenicity, category 2, H341 Reproductive toxicity, category 2, H361

Ethyl alcohol (Ethanol) (≥ 71% - < 73%)

N°CAS	N° CE	N° REACH	Classification
64-17--5	200-578-6	01-2119457610-43 xxxx	Highly flammable liquid, category 2, H225

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

SECTION 4. First aid measures

4.1 Description of first aid measures

After inhalation: fresh air. Call in physician.
After skin contact: wash off with plenty of water. Remove contaminated clothing. Consult a physician.
After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO_2), alcohol resistant foam, dry powder, eau.
Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Combustible.
Development of hazardous combustion gases or vapors possible in the event of fire: carbon monoxide (CO) and carbon dioxide (CO_2).

5.3 Advice for firefighters

Special protective equipment for firefighters
In the event of fire, wear self-contained breathing apparatus.
Further information
Prevent fire extinguishing water from contaminating surface water or the ground water system. Move containers from the danger area, cool them with water

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid mixture contact. Do not breathe vapors, aerosols. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment, see section 8.

6.2 Environmental precautions

Do not discharge to sewers and natural waters.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bundle and pump released products
Never place spilled material in original container. Take up with liquid-absorbent material (e.g. Trivorex ® (PREVOR). Dispose of properly. Clean up affected area. Shovel into suitable and closed container for disposal.

6.4 Various indications

Remove immediately spillages of material.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling:
Work under hood. Do no inhale mixture.
Observe label precautions.
Hygiene measures
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands after working with mixture.
Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions:
Store at +15°C to +25°C
Keep container tightly closed in a dry and well ventilated place, away from heat and ignition sources.

7.3 Specific end use(s)

See exposure scenario in the Annex to this SDS.

SECTION 8. Exposure controls / personal protection

8.1 Control parameters

Components with occupational exposure limit values

Ethyl alcohol (Ethanol) (64-17-5)

Base	Value	Threshold limit values	Comment
Limit value for occupational exposure (VLEP France)	Time Weighted Average Threshold Limit Value	1000 ppm 1900 mg/m^3	Indicative limit values
	Short Term Exposure Limit Value	5000 ppm 9500 mg/m^3	Indicative limit values

Derived No Effect Concentration (DNEL)

Worker DNEL, acute	Local effects	inhalation	1900 mg/m^3
Worker DNEL, long term	Systemic effects	dermal	343 mg/kg Body weight
Worker DNEL, long term	Systemic effects	inhalation	950 mg/m^3
Consumer DNEL, acute	Local effects	inhalation	950 mg/m^3
Consumer DNEL, long term	Systemic effects	dermal	206 mg/kg Body weight
Consumer DNEL, long term	Systemic effects	inhalation	114 mg/m^3
Consumer DNEL, long term	Systemic effects	oral	87 mg/kg Body weight

Predictive No Efect Concentration (PNEC)

Ethanol (64-17-5)

PNEC Fresh water	PNEC marine water	PNEC Fresh water sediment	PNEC Soill	PNEC Aquatic intermittent release	Sewage treatment plant	PNEC Oral
0.96 mg/l	3.6 mg/kg	0.79 mg/l	0.63 mg/kg	2.75 mg/l	580 mg/l	720 mg/kg

8.2 Exposure controls

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures

Eye/face protection

Safety glasses

Hand protection

Wear exclusively suitable gloves, with EC marking. If gloves are to be reused: cleanse before removal and store in a well-ventilated area.

full contact:	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min
Splash contact:	Glove material:	Nitrile rubber
	Glove thickness:	0,11 mm
	Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

Body protection

Wear a chemical resistant protective clothing, with EC marking.

Respiratory protection

Required when vapors/aerosols are generated.
Recommended filter type: A.
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Additional information

Wash hands before breaks and at end of shift. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. An eyewash station is set up and its location is conspicuously identified.

Environmental exposure controls

Do not empty into drains.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid.
Color	colorless.
Odor	alcohol.
Odor Threshold	No information available.
pH	around 5 (20°C).
Melting point	No information available.
Boiling point	No information available.
Flash point	21°C.
Evaporation rate	No information available.

Flammability (solid, gas)	Flammable liquid and vapors.
Lower explosion limit	3.5% (V) (Ethanol 96%).
Upper explosion limit	15% (V) (Ethanol 96%).
Vapor pressure	About 59 hP at 20°C (Ethanol 96%).
Relative vapor density	No information available.
Relative density	No information available.
Water solubility	soluble.
Partition coefficient: n- octanol/water	log Pow: -0.31 (Ethanol 96%).
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	1.2 mPa (20°C) (ethanol 96%).
Explosive properties	Not classified as an explosive (However, formation of explosive air/vapor mixtures are possible)
Oxidizing properties	Not applicable.

9.2 Other data

Bulk density	No information available.
Refraction index	No information available.
Dissociation constant	No information available.
Surface tension	No information available.
Henry constant	No information available.

SECTION 10. Stability and reactivity

10.1 Reactivity

Vapors may form explosive mixtures with air.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

(Ethanol 96%)
Risk of explosion/exothermic reaction with:
hydrogen peroxide, perchlorates, perchloric acid, nitric acid, mercury(II) nitrate, permanganic acid, nitriles, peroxi compounds, strong oxidizing agents, nitrosyl compounds, peroxides, sodium, potassium, halogen oxides, calcium hypochlorite, nitrogen dioxide, metallic oxides, uranium hexafluoride, iodides, chlorine, alkali metals, alkaline earth metals, alkali oxides, ethylene oxide,
silver with nitric acid, silver compounds, with ammonia, potassium permanganate with conc. sulfuric acid
Risk of ignition or formation of inflammable gases or vapors with:
halogen-halogen compounds, chromium(VI) oxide, chromyl chloride, fluorine, hydrides, oxides of phosphorus, platinum.

10.4 Conditions to avoid

Warming, flames and sparks.

10.5 Incompatible materials

rubber, various plastics.

10.6 Hazardous decomposition products in the event of fire

Carbon monoxide and carbon dioxide

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Mixture

Acute oral toxicity	No information available.
Acute inhalation toxicity	No information available.

Acute dermal toxicity	No information available.
Skin irritation	No information available.
Eye irritation	No information available.
Sensitization (skin, inhalation)	No information available.
Specific target organ toxicity - single exposure	No information available.
Specific target organ toxicity - repeated exposure	No information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity	Carcinogenic
Mutagenicity	Suspected of causing genetic defects
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Aspiration hazard	No information available.

11.2 Further information

Handle in accordance with good industrial hygiene and safety practice.

Components

Phenolphthalein

Acute oral toxicity
LD50: no information available
Can cause gastrointestinal irritation. Laxative. Cathartic. May result in purging, collapse, fall in blood pressure, pruritic rash. May be fatal if ingested in large quantities.
Acute inhalation toxicity
May cause irritation of the respiratory tract and mucous membranes.
Acute dermal toxicity
Not classified as irritant, but could be dangerous by absorption through the skin.
Eye irritation
Mild irritant.
Sensitization
No sensitizing effects known.
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
Carcinogenicity
Known carcinogenic
IARC: classified L3 group.
Genotoxicity in vivo
Micronucleus test Mouse
Result: positive.
Genotoxicity in vitro
Ames test Salmonella typhimurium
Result: negative.
Chromosome aberration
Result: positive.
Toxicity for reproduction
Suspected of damaging fertility.
Specific target organ toxicity - single exposure
Not classified as a specific target organ toxicant, single exposure.
Specific target organ toxicity - repeated exposure
Not classified as a specific target organ toxicant, repeated exposure.
Aspiration hazard
This information is not available.
Further information
This substance should be handled with particular care.

Ethanol 96

Acute oral toxicity
LD50 rat: 6.200 mg/kg (IUCLID)
Symptoms: nausea, vomiting.
Acute inhalation toxicity
LC50 rat: 95.6 mg/kg, 4 h (RTECS)
Symptoms: slight mucosal irritations.
Acute dermal toxicity
Result: no irritation
OECD Test Guideline 404
Repeated and prolonged exposure may cause skin irritation and dermatitis due to degreasing properties of the product.
Eye irritation
This information is not available.
Sensitization
Sensitization test (Magnusson and Kligman)
Result: negative (UICLID).
Genotoxicity in vitro
Ames test Salmonella typhimurim
Result: negative. (National Toxicology program).
Cancerogenicity
This information is not available.
Toxicity for reproduction
This information is not available.
Teratogenicity
This information is not available.
Specific target organ toxicity - single exposure
This information is not available.
Specific target organ toxicity - repeated exposure
This information is not available.
Aspiration hazard
This information is not available.
Further information
Systemic effect: euphoria
If absorbed in large quantities: dizziness, inebriation, narcosis, respiratory paralysis.
Handle in accordance with good industrial hygiene and safety practice

SECTION 12. Ecological Information

Mixture

12.1 Ecotoxicity

Acute (short-term) fish toxicity	
LC50 - EC50 - species - exposure time	No information available.
Chronic (long-term) fish toxicity	
LC50 - EC50 - species - exposure time	No information available.
Acute (short-term) daphnia toxicity	
LC50 - EC50 - species - exposure time	No information available.
Chronic (long-term) daphnia toxicity	
LC50 - EC50 - species - exposure time	No information available.
Acute (short-term) algae toxicity	
LC50 - EC50 - species - exposure time	No information available.
Chronic (long-term) algae toxicity	
LC50 - EC50 - species - exposure time	No information available.
12.2 Persistence and degradability	No information available.
12.3 Bioaccumulative potential	No information available.
12.4 Mobility in soil	No information available.
12.5 Results of PBT and vPvB assessment	No information available.

12.6 Other adverse effects

Additional/ ecological information
Discharge into the environment must be avoided.

Components

Phenolphthalein

Toxicity to fish
This information is not available.
Toxicity for daphnia and other aquatic invertebrates
EC50 Daphnia magna (water flea): > 4.34 mg/l; 48 h (OECD Test Guideline 202)
Toxicity to algae
Growth inhibition EbC50 Desmodesmus subspicatus (green algae): 2.5 mg/l, 72 h (OECD Test Guideline 201)
Growth inhibition ErC50 Desmodesmus subspicatus (green algae): > 3.33 mg/l, 72 h (OCDE Guideline 201)
Growth inhibition NOEC Desmodesmus subspicatus (green algae): 0.57 mg/l, 72 h (OCDE Guideline 201)
Persistence and biodegradability
Readily biodegradable
Bioaccumulative potential
Partition coefficient n- octanol/water: log Pow: 0,9
OECD Test Guideline 107
Bioaccumulation is not expected.
Mobility in soil
No information available.
Results of PBT et vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Ethanol 96

Toxicity to fish
LC50 Leuciscus idus (Golden orfe): 8.140 mg/l; 48 h (anhydrous substance) (IUCLID).
Toxicity for daphnia and other aquatic invertebrates
EC5 E. sulcatum: 65 mg/l ; 72 h (lit.)
EC50 Daphnia magna: 9.268 -14.221 mg/l mg/l; 48 h (IUCLID)
Toxicity to algae
IC5 Scenedesmus quadricauda (green algae): 5,000 mg/l; 7 d (Lit.)
Toxicity to bacteria
EC5 Pseudomonas putida: 6.500 mg/l; 16 h (IUCLID)
Biological oxygen demand (BOD): 930 - 1.670 mg/g (5 d) (Lit.)
Theoretical oxygen demand (ThOD): 2.100 mg/g (Lit.)
Ratio COD/ThBOD: 90% (Lit.)
Bioaccumulative potential
Partition coefficient: n-octanol/water: log Pow: -0,31 (expérimental) (Lit.)
Bioaccumulation is not expected.
Mobility in soil
No information available
Results of PBT and vPvB assessment
Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.
Additional ecological information
No interference with wastewater treatment plants are to be expected when used properly.
Discharge into the environment must be avoided.

SECTION 13. Disposal considerations

Waste treatment methods

Waste must be disposed of in accordance with the Directive on waste 2008/98/EC and with local and national regulations. Leave chemicals in original containers. No mixing with other waste. Treat uncleaned containers like the product itself.

SECTION 14. Transport information

Land transport (ADR/RID)

UN number	1170
Proper shipping name	ETHANOL SOLUTION
Class	3
Packing group	II
Environmentally hazardous	no
Tunnel restriction code	D/E

Air transport (IATA)

UN number	1170
Proper shipping name	ETHANOL SOLUTION
Class	3
Packing group	II
Environmentally hazardous	no

Sea transport (IMDG)

UN number	1170
Proper shipping name	ETHANOL SOLUTION
Class	3
Packing group	II
Marine pollutant	no
No EmS	F-E S-D

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not relevant

SECTION 15. Regulatory information

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

UE regulations

Aquatic Class risk (WGK)	WGK1 (slightly hazardous for water).
Occupational restrictions	Take note of Directive 94/33/EC on the protection of young people at work and Directive 92/85/EEC on the safety and health at work of pregnant women
Substances of very high concern (SVHC)	This product contain a substances of very high concern: phenolphthalein (77-09-08) above the respective regulatory limit (> 0.1%(w/w) according to Regulation (EC) N° 1907/2006 (REACH), Article 57

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16. Other information

Full text of H-Statements referred to under section 3

H225	Highly flammable liquid and vapor
H350	May cause cancer
H341	Suspected of causing genetic defects
H361	Suspected of damaging fertility

Training advice

Provide adequate information, instruction and training for operators.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. If does not represent a guarantee of any properties of the product.

ANNEX: Extract of exposure scenario (ES no 1) of workers and environment applicable to professional use of substance ethanol, in accordance with requirements of the REACH Regulation (EC no 1907/2006)

1. ***Industrial use (Pharmaceutical production, Cosmetic raw material)***

Sectors of end-use

SU 3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU 10 Formulation [mixing] of preparations and/ or re-packaging (excluding alloys)

Chemical product category

PC19 Intermediate

PC39 Cosmetics, personal care products

Process categories

PROC15 Use as laboratory reagent

Environmental Release Categories

ERC1 Manufacture of substances

ERC2 Formulation of preparations

ERC4 Industrial use of processing aids in processes and products, not becoming part of articles

ERC6a Industrial use resulting in manufacture of another substance (use of intermediates)

2. Contributing scenarios: Operational conditions and risk management measures

***2.1 Contributing* scenario controlling environmental exposure for: ERC1, ERC4, ERC6a**

Amount used

Annual amount per site	400000 t

Environment factors not influenced by risk management

Flow rate	18,000 m^3/d

Other given operational conditions affecting environmental exposure

Number of emission days per year	350
Emission or Release Factor: Air	70 %
Emission or Release Factor: Water	87 %

Conditions and measures related to municipal sewage treatment plan

Type of Sewage Treatment Plant	Municipal sewage treatment plant
Effectiveness (of a measure)	90 %

2.2 Contributing scenario controlling environmental exposure for: ERC2

Amount used

Annual amount per site	75000 t

Environment factors not influenced by risk management

Flow rate	18,000 m^3/d

Other given operational conditions affecting environmental exposure

Number of emission days per year	300

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant	Municipal sewage treatment plant
Effectiveness (of a measure)	90 %

2.3 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC14, PROC15

Product characteristics

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 %.
Physical Form (at time of use)	High volatile liquid

Frequency and duration of use

Frequency of use	8 hours/day

Other operational conditions affecting workers exposure

Outdoor / Indoor	Indoor without local exhaust ventilation (LEV)

Additional good practice advice beyond the REACH Chemical Safety Assessment

Additional good practice advice	Wear suitable gloves (tested to EN374) and eye protection.

3. Exposure estimation and reference to its source

Environment

CS	Use descriptor	Msafe	Compartment	RCR	Exposure Assessment Method
2.1	ERC1		Fresh water	< 0.01	ECETOC TRA
			Marine water	< 0.01	ECETOC TRA
			Soil	< 0.01	ECETOC TRA
2.1	ERC4		Fresh water	< 0.01	ECETOC TRA
			Marine water	< 0.01	ECETOC TRA
			Soil	< 0.01	ECETOC TRA
2.1	ERC6a		Fresh water	< 0.01	ECETOC TRA
			Marine water	< 0.01	ECETOC TRA
			Soil	< 0.01	ECETOC TRA
2.2	ERC2		Fresh water	0.11	ECETOC TRA
			Marine water	0.01	ECETOC TRA
			Soil	< 0.01	ECETOC TRA

Workers

CS	Use descriptor	Exposure duration, route, effect	RCR	Exposure Assessment Method
2.1	PROC15	long term, inhalation, systemic	0.10	ECETOC TRA3
		long term, dermal, systemic	< 0.01	ECETOC TRA3
		long term, combined, systemic	0.10	

The default parameters and -efficiencies of the applied exposure assessment model were used for the calculation (unless stated differently).

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Please refer to the following documents: ECHA Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system; ECHA Guidance for downstream users; ECHA Guidance on information requirements and chemical safety assessment Part D: Exposure Scenario Building, Part E: Risk Characterization and Part G: Extending the SDS; VCI/Cefic REACH Practical Guides on Exposure Assessment and Communications in the Supply Chain; CEFIC Guidance Specific Environmental Release Categories (SPERCs).