Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 14.04.2026 Version number 14 (replaces version 13) Revision: 14.04.2026

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

· **1.1 Product identifier**
· **Trade name: Phenolphthalein, R1 solution**
· **SDS number:** CH2559
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
For professional users only
No further relevant information available.
· **Life cycle stages**
IS Use at industrial Sites
F Formulation or re-packing
· **Sector of Use**
SU9 Manufacture of fine chemicals
SU24 Scientific research and development
· **Product category**
PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
PC21 Laboratory chemicals
PC29 Pharmaceuticals
PC40 Extraction agents
· **Process category**
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC4 Chemical production where opportunity for exposure arises
PROC5 Mixing or blending in batch processes
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC15 Use as laboratory reagent
· **Environmental release category**
ERC1 Manufacture of the substance
ERC2 Formulation into mixture
ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC6a Use of an intermediary
· **Application of the substance / the mixture** Chemicals products for laboratory

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
CARLO ERBA REAGENTS
Chaussée du Vexin
Parc d'Affaires des Portes - BP616
27106 VAL DE REUIL Cedex
Téléphone: +33 (0)2 32 09 20 00
Télécopie: +33 (0)2 32 09 20 20
· **Further information obtainable from:**
Q.A / Normative
email: MSDS_CER-SDS@cer.dgroup.it
· **1.4 Emergency telephone number:**
Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24)
EU Tel : 112

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SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Muta. 2 H341 Suspected of causing genetic defects.
Carc. 1B H350 May cause cancer. Route of exposure: Oral.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**
Phenolphthalein
· **Hazard statements**
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H341 Suspected of causing genetic defects.
H350 May cause cancer. Route of exposure: Oral.
· **Precautionary statements**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P280 Wear protective gloves / eye protection / face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
· **Additional information:**
Restricted to professional users.
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** *Not applicable*

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· ***vPvB:*** *Not applicable*
· ***Determination of endocrine-disrupting properties*** *Not applicable*

SECTION 3: Composition/information on ingredients

· ***3.2 Mixtures***
· ***Description:*** *Mixture made by the following substances:*

· ***Dangerous components:***

CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 RTECS: KQ 6300000 Reg.nr.: 01-2119457610-43	Ethyl alcohol Flam. Liq. 2, H225; Eye Irrit. 2, H319 Specific concentration limit: Eye Irrit. 2; H319: C ≥ 50 %	50-100%
CAS: 77-09-8 EINECS: 201-004-7 Index number: 604-076-00-1	Phenolphthalein Muta. 2, H341; Carc. 1B, H350; Repr. 2, H361f Specific concentration limit: Carc. 1B; H350: C ≥ 1 %	≥1-<2.5%

· ***SVHC***

CAS: 77-09-8	Phenolphthalein

SECTION 4: First aid measures

· ***4.1 Description of first aid measures***
· ***After inhalation:*** *Supply fresh air; consult a doctor in case of complaints.*
· ***After skin contact:*** *If skin irritation continues, consult a doctor.*
· ***After eye contact:***
Rinse opened eye for several minutes under running water. Then consult a doctor.
Seek immediate medical advice.
· ***After swallowing:*** *If some symptoms persist seek for medical advice.*
· ***Information for doctor:*** *Show the doctor this Material Safety Data Sheet.*
· ***4.2 Most important symptoms and effects, both acute and delayed*** *No further relevant information available.*
· ***4.3 Indication of any immediate medical attention and special treatment needed***
No further relevant information available.

SECTION 5: Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents:*** *CO2 or alcohol resistant foam.*
· ***For safety reasons unsuitable extinguishing agents:*** *Water with full jet.*
· ***5.2 Special hazards arising from the substance or mixture***
Can form explosive gas-air mixtures.
Carbon monoxide and carbon dioxide
· ***5.3 Advice for firefighters***
· ***Protective equipment:*** *Do not inhale gases in case or fire or combustion.*
· ***Additional information*** *Keep receptacles cool with water spray.*

SECTION 6: Accidental release measures

· ***6.1 Personal precautions, protective equipment and emergency procedures***
Keep away any ignition source.

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Wear protective equipment. Keep unprotected persons away.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Ensure adequate ventilation

· ***6.2 Environmental precautions:***
Do not allow to penetrate the ground/soil.
Dilute with plenty of water after collecting the liquid.
Do not allow to enter sewers/ surface or ground water.

· ***6.3 Methods and material for containment and cleaning up:***
Collect the liquid with vacuum in a suitable container and absorb the remainder with a porous material (diatomite, acid binders, universal binders, etc).
Ensure adequate ventilation.
Dispose contaminated material as waste according to section 13.

· ***6.4 Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· ***7.1 Precautions for safe handling***
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.
Pneumatic conveyance only with nitrogen or other inert gases.

· ***Information about fire - and explosion protection:***



Keep ignition sources away - Do not smoke.

Protect from heat.
Protect against electrostatic charges.
Use explosion-proof apparatus / fittings and spark-proof tools.
Keep respiratory protective device available.

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:***
Store in a cool location.
Use only receptacles specifically permitted for this substance/product.
· ***Information about storage in one common storage facility:*** *Not required*
· ***Further information about storage conditions:*** *Store in cool, dry conditions in well sealed receptacles.*
· ***7.3 Specific end use(s)*** *No further relevant information available.*

*
SECTION 8: Exposure controls/personal protection

· ***8.1 Control parameters***
· ***Ingredients with limit values that require monitoring at the workplace:***
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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· ***DNELs***

CAS: 64-17-5 Ethyl alcohol		
Dermal	*DNEL (workers-systemic chronic effects)*	*343 mg/kg*
Inhalative	*DNEL (workers-local effects Acute)*	*19 mg/m3*
	DNEL (workers-systemic chronic effects)	*950 mg/m3*

· ***PNECs***

CAS: 64-17-5 Ethyl alcohol	
PNEC (Fresh water)	*0.96 mg/l*
PNEC (Freshwater sediment)	*3.6 mg/kg*
PNEC (Marine water)	*0.79 mg/l*
PNEC (Seawater sediment)	*2.9 mg/l*
PNEC (STP)	*580 mg/l*
PNEC (Soil)	*0.63 mg/kg*

· ***Additional information:*** *The lists valid during the making were used as basis.*

· ***8.2 Exposure controls***
· ***Appropriate engineering controls***
Safety shower and eye bath. Mechanical exhaust required.
No further data; see section 7.
· ***Individual protection measures, such as personal protective equipment***
· ***General protective and hygienic measures:***
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
· ***Respiratory protection:***
Use suitable respiratory protective device only when aerosol or mist is formed.



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter P2
The selected respiratory protection must comply with standard EN 136/140/143/145/149.
· ***Hand protection***
The selected protective gloves have to satisfy the specifications of REGULATION (EU) 2016/425 and the standard EN 374 derived from it.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation



Protective gloves

Rubber gloves
Avoid direct contact with the chemical/ the product/ the preparation by organisational measures.
· ***Material of gloves***
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Rubber gloves

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· ***Penetration time of glove material***
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· ***Eye/face protection***



Face protection

· ***Body protection:*** *Protective work clothing*
· ***Environmental exposure controls***
In case of unintended release of the product: See section 6 of the Safety Data Sheet.
· ***Risk management measures*** *Keep good industrial hygiene.*

SECTION 9: Physical and chemical properties

· ***9.1 Information on basic physical and chemical properties***	
· ***Molecular weight***	
· ***Physical state***	*Liquid*
· ***Colour:***	*Colourless*
· ***Odour:***	*Sweetish*
· ***Odour threshold:***	*Not determined*
· ***Melting point/freezing point:***	*Undetermined*
· ***Boiling point or initial boiling point and boiling range***	*78 °C*
· ***Flammability***	*Flammable.*
· ***Lower and upper explosion limit***	
· ***Lower:***	*3.5 Vol %*
· ***Upper:***	*15 Vol %*
· ***Flash point:***	*13 °C*
· ***Auto-ignition temperature:***	*425 °C*
· ***Decomposition temperature:***	*Not determined*
· ***pH***	*Not determined*
· ***Viscosity:***	
· ***Kinematic viscosity***	*Not determined*
· ***Dynamic:***	*Not determined*
· ***Solubility***	
· ***water:***	*Fully miscible.*
· ***Partition coefficient n-octanol/water (log value)***	*Not determined*
· ***Vapour pressure at 20 °C:***	*59 hPa*
· ***Density and/or relative density***	
· ***Density at 20 °C:***	*0.924 g/cm³*
· ***Relative density***	*Not determined*
· ***Vapour density***	*Not determined*

· ***9.2 Other information***	
· ***Appearance:***	
· ***Form:***	*Fluid*

· ***Important information on protection of health and environment, and on safety.***

64-17-5	*Ethyl alcohol*	*MIE (TRGS-727) 0,28 mJ*

· ***Ignition temperature:***	*Product is not selfigniting.*
· ***Explosive properties:***	*Product is not explosive. However, formation of explosive air/vapour mixtures are possible.*

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· **Solvent separation test:**	
· **Organic solvents:**	94.0 %
· **Solids content:**	1.0 %
· **Change in condition**	
· **Evaporation rate**	Not determined

· **Information with regard to physical hazard classes**	
· **Explosives**	Void
· **Flammable gases**	Void
· **Aerosols**	Void
· **Oxidising gases**	Void
· **Gases under pressure**	Void
· **Flammable liquids**	Highly flammable liquid and vapour.
· **Flammable solids**	Void
· **Self-reactive substances and mixtures**	Void
· **Pyrophoric liquids**	Void
· **Pyrophoric solids**	Void
· **Self-heating substances and mixtures**	Void
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	Void
· **Desensitised explosives**	Void

SECTION 10: Stability and reactivity

· **10.1 Reactivity** See 10.3
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.
· **10.4 Conditions to avoid**
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** Carbon monoxide, Carbon dioxide.

SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

CAS: 64-17-5 Ethyl alcohol

Oral	LD50	6,200-15,000 mg/kg (rat)
Dermal	LD50	17,100 mg/kg (rabbit)
Inhalative	LC50/4 h	117 mg/L (rat)
	LC50	>50 mg/m³ (rat)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

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· ***Serious eye damage/irritation***
Strong irritant with the danger of severe eye injury.
Causes serious eye irritation.
· ***Ingestion:*** *May be fatal if swallowed.*
· ***Inhalation:***
Inhalation may result in spasm, inflammation and edema of the larynxand bronchi, chemical pneumonitis, and pulmonary edema.
Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
· ***Respiratory or skin sensitisation*** *Based on available data, the classification criteria are not met.*
· ***Germ cell mutagenicity*** *Suspected of causing genetic defects.*
· ***Carcinogenicity*** *May cause cancer. Route of exposure: Oral.*
· ***Reproductive toxicity*** *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.*
· ***Other information (about experimental toxicology):*** *No further relevant information available.*
· ***11.2 Information on other hazards***

· ***Endocrine disrupting properties***
None of the ingredients is listed.

SECTION 12: Ecological information

· ***12.1 Toxicity***
· ***Aquatic toxicity:***
Foreseeable as non relevant.

CAS: 64-17-5 Ethyl alcohol	
EC50/48h	*5,012 mg/l (Daphnia) (freshwater)*
EC50	*72 mg/L (algae)*
LC50/96h	*11,200 mg/l (fishes) (freshwater)*

· ***12.2 Persistence and degradability*** *No further relevant information available.*
· ***Method***
· ***Ecological information*** *Not available*
· ***Other information:***
The product is easily biodegradable.
The dye is slowly dagradable.
· ***12.3 Bioaccumulative potential*** *No further relevant information available.*
· ***12.4 Mobility in soil*** *No further relevant information available.*
· ***12.5 Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable*
· ***vPvB:*** *Not applicable*
· ***12.6 Endocrine disrupting properties***
The product does not contain substances with endocrine disrupting properties.
· ***12.7 Other adverse effects***
· ***Remark:*** *No available data.*
· ***Additional ecological information:***
· ***General notes:***
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

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SECTION 13: Disposal considerations

· ***13.1 Waste treatment methods***
· ***Recommendation***
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Reutilise if possible or contact a waste processors for recycling or safe disposal. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Observe all federal, state, and local environmental regulations.
· ***Waste disposal key:***
The European Union does not establish uniform rules for the disposal of chemical waste, which are special waste. Their treatment and elimination of the domestic legislation of each country. So, in each case, you should contact the relevant authorities, or those companies legally authorized for elimination of waste.
2014/955/UE: Council Decision of 18 December 2014 amending the list of wastes contained in Decision 2000/532/EC.
Directive 2008/98/EC of the european parliament and of the council of 18 November 2008, in ist latest valid version.

· ***European waste catalogue***	
HP3	*Flammable*
HP4	*Irritant - skin irritation and eye damage*
HP7	*Carcinogenic*
HP11	*Mutagenic*

· ***Uncleaned packaging:***
The containers and packaging materials contaminated with dangerous substances or preparations, have the same treatment of products.
Directive 94/62/EC of the European Parliament and the Council of 20 December 1994 on packaging and packaging waste.
· ***Recommendation:***
Disposal must be made according to official regulations.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
· ***Recommended cleansing agents:*** *Alcohol*

SECTION 14: Transport information

· ***14.1 UN number or ID number***
· ***ADR/RID, IMDG, IATA*** *UN1170*

· ***14.2 UN proper shipping name***
· ***ADR/RID*** *1170 ETHANOL (ETHYL ALCOHOL) mixture*
· ***IMDG*** *ETHANOL (ETHYL ALCOHOL) mixture*
· ***IATA*** *Ethanol mixture*

· ***14.3 Transport hazard class(es)***

· ***ADR/RID***



· ***Class*** *3 (F1) Flammable liquids.*

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· ***Label***	*3*
· ***IMDG, IATA***	
	
· ***Class***	*3 Flammable liquids.*
· ***Label***	*3*
· ***14.4 Packing group***	
· ***ADR/RID, IMDG, IATA***	*III*
· ***14.5 Environmental hazards:***	
· ***Marine pollutant:***	*No*
· ***14.6 Special precautions for user***	*Warning: Flammable liquids.*
· ***Hazard identification number (Kemler code):***	*30*
· ***EMS Number:***	*F-E,S-D*
· ***Stowage Category***	*A*
· ***14.7 Maritime transport in bulk according to IMO instruments***	*Not applicable*
· ***Transport/Additional information:***	
· ***ADR/RID***	
· ***Excepted quantities (EQ):***	*E1*
· ***Limited quantities (LQ)***	*5L*
· ***Excepted quantities (EQ)***	*Code: E1* *Maximum net quantity per inner packaging: 30 ml* *Maximum net quantity per outer packaging: 1000 ml*
· ***Transport category***	*3*
· ***Tunnel restriction code***	*D/E*
· ***IMDG***	
· ***Limited quantities (LQ)***	*5L*
· ***Excepted quantities (EQ)***	*Code: E1* *Maximum net quantity per inner packaging: 30 ml* *Maximum net quantity per outer packaging: 1000 ml*
· ***UN "Model Regulation":***	*UN 1170 ETHANOL (ETHYL ALCOHOL) MIXTURE, 3, III*

SECTION 15: Regulatory information

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

· ***SARA Section 355 (extremely hazardous substances)***

None of the ingredients is listed.

· ***SARA Section 313 (specific toxic chemical listings)***

CAS: 77-09-8	*Phenolphthalein*

· ***Prop 65 - Chemicals known to cause cancer***

CAS: 77-09-8	*Phenolphthalein*

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· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category** P5c FLAMMABLE LIQUIDS
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

· **REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)**
None of the ingredients is listed.

· **LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)**
None of the ingredients is listed.

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 28

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.

· **REGULATION (EU) 2024/590 on substances that deplete the ozone layer**
None of the ingredients is listed.

· **National regulations:**

· **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.

· **Technical instructions (air):**

Class	Share in %
NK	50-100

· **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

· **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

CAS: 77-09-8	Phenolphthalein

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H361f Suspected of damaging fertility.
· **Training hints** Deploy only trained chemical workers.
· **Department issuing SDS:** Q.A./Normative
· **Date of previous version:** 09.04.2021
· **Version number of previous version:** 13
· **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
RCR : Risk Characterisation Ratio
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Flam. Liq. 2: Flammable liquids – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Muta. 2: Germ cell mutagenicity – Category 2
Carc. 1B: Carcinogenicity – Category 1B
Repr. 2: Reproductive toxicity – Category 2

· ***Sources***
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006, REACH, in the latest valid version.
Regulation (EC) N° 1272/2008 of the European Parliament and of the Council of 16 December 2008, CLP, in the latest valid version.
Globally Harmonized System, GHS
ADR/RID, IMDG, IATA
PubChem : an open chemistry database at the National Institutes of Health (NIH)
ECHA : European CHemicals Agency
GESTIS : Information system on hazardous substances of the German Social Accident Insurance

· **** Data compared to the previous version altered.*** .

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Annex: Exposure scenario

· ***Short title of the exposure scenario*** *Substance manufacturing*
· ***Sector of Use*** *Industrial use.*
· ***Product category***
PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
PC21 Laboratory chemicals
PC29 Pharmaceuticals
PC40 Extraction agents
· ***Process category***
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
· ***Environmental release category*** *ERC1 Manufacture of the substance*
· ***Description of the activities / processes covered in the Exposure Scenario***
See section 1 of the annex to the Safety Data Sheet.
· ***Conditions of use***
According to directions for use.
Customary application according to section 1.
· ***Duration and frequency*** *5 workdays/week.*
· ***Physical parameters***
The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.
· ***Physical state***
Fluid
Fluid
· ***Concentration of the substance in the mixture*** *The substance is main component.*
· ***Used amount per time or activity*** *According to directions for use.*
· ***Other operational conditions*** *Observe the general safety regulations when handling chemicals.*
· ***Other operational conditions affecting environmental exposure***
No special measures required.
Observe section 6 of the Safety Data Sheet (Accidental release measures).
· ***Other operational conditions affecting worker exposure***
Take precautionary measures against static discharge.
Keep away from sources of ignition - No smoking.
· ***Risk management measures***
· ***Worker protection***
· ***Organisational protective measures***
Keep good industrial hygiene.
Deploy only trained chemical workers.
Ensure that activities are executed by specialists or authorised personnel only.
No special measures required.
For special applications, it is recommended to verify the chemical resistance of the above stated protective gloves with the manufacturer.
Provide sufficient washing facilities.
Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.
Work clothes must not consist of textiles that exhibit dangerous melting behaviour in case of fire.
· ***Technical protective measures***
Ensure that suitable extractors are available on processing machines
Ensure good ventilation/exhaustion at the workplace.
Provide explosion-proof electrical equipment.
· ***Personal protective measures***
Do not inhale gases / fumes / aerosols.

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Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

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Trade name: Phenolphthalein, R1 solution

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Protective work clothing
Face protection
The selected protective gloves have to satisfy the specifications of REGULATION (EU) 2016/425 and the standard EN 374 derived from it.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Protective gloves
Rubber gloves
Avoid direct contact with the chemical/ the product/ the preparation by organisational measures.
The usual precautionary measures are to be adhered to when handling chemicals.
Detailed measures on hand protection according to Safety Data Sheet, section 8.
Use suitable respiratory protective device only when aerosol or mist is formed.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Filter P2
The selected respiratory protection must comply with standard EN 136/140/143/145/149.

· ***Environmental protection measures***
· ***Water*** *No special measures required.*
· ***Notes*** *In case of unintended release of the product: See section 6 of the Safety Data Sheet.*
· ***Disposal measures***
Disposal must be made according to official regulations.
Ensure that waste is collected and contained.
· ***Disposal procedures***
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
· ***Waste type*** *Partially emptied and uncleaned packaging*
· ***Guidance for downstream users***
No further relevant information available.
Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.