Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 26.02.2019 *Version number 5* *Revision: 26.02.2019*

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

· **1.1 Product identifier**
· **Trade name: Standard for Conductivity 150000 µS/ cm**
· **MSDS number:** CH2977
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
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 intermediate
· **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:**
France (ORFILA 24h/24) - Tel : +33 (0)1 45 42 59 59
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**



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

· **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**



GHS07

· **Signal word** Warning
· **Hazard statements**
H302 Harmful if swallowed.
· **Precautionary statements**
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 Rinse mouth.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· **2.3 Other hazards** -
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

*
SECTION 3: Composition/information on ingredients

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

CAS: 7447-40-7 EINECS: 231-211-8 RTECS: TS 8050000	Potassium chloride	5-10%

· **Dangerous components:** Void

*
SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **After inhalation:**
Take affected persons into fresh air and keep quiet.
Supply fresh air.
If not breathing, give artificial respiration.
Consult doctor if symptoms persist.

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· ***After skin contact:***
Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
· ***After eye contact:*** *Seek immediate medical advice.*
· ***After swallowing:***
Do not induce vomiting; call for medical help immediately.
Call for a doctor immediately.
· ***4.2 Most important symptoms and effects, both acute and delayed*** *No further relevant information available.*
· ***Information for doctor:*** *Show the doctor this Material Safety Data Sheet.*
· ***4.3 Indication of any immediate medical attention and special treatment needed***
No further relevant information available.

SECTION 5: Firefighting measures

· ***General Information:***
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents:*** *Use fire extinguishing methods suitable to surrounding conditions.*
· ***5.2 Special hazards arising from the substance or mixture*** *No further relevant information available.*
· ***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

· ***General Information:*** *Use proper personal protective equipment as indicated in Section 8.*
· ***6.1 Personal precautions, protective equipment and emergency procedures*** *Ensure adequate ventilation*
· ***6.2 Environmental precautions:***
Inform respective authorities in case of seepage into water course or sewage system.
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).
· ***6.4 Reference to other sections***
No dangerous substances are released.
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*** *No special precautions are necessary if used correctly.*
· ***Information about fire - and explosion protection:*** *The product is not flammable.*

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:***
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
· ***Information about storage in one common storage facility:*** *Not required.*
· ***Further information about storage conditions:*** *None.*

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· ***7.3 Specific end use(s)*** *No further relevant information available.*

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SECTION 8: Exposure controls/personal protection

· ***Additional information about design of technical facilities:*** *No further data; see item 7.*

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

· ***8.2 Exposure controls***
· ***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.
· ***Respiratory protection:*** *Use suitable respiratory protective device only when aerosol or mist is formed.*
· ***Protection of hands:***
The selected protective gloves have to satisfy the specifications of REGULATION (EU) 2016/425 and the standard EN 374 derived from it.
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.
Nitrile rubber, NBR
Neoprene gloves
PVC gloves
· ***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 protection:***



Safety glasses

· ***Body protection:*** *Protective work clothing*
· ***Limitation and supervision of exposure into the environment***
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***
· ***Appearance:***

Form:	*Liquid*
Colour:	*Colourless*

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· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **pH-value at 20 °C:**	7
· **Change in condition**	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	1,500 °C
· **Flash point:**	Not applicable.
· **Flammability (solid, gas):**	Not applicable.
· **Ignition temperature:**	360 °C
· **Decomposition temperature:**	Not determined.
· **Auto-ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	2.1 Vol %
Upper:	13.5 Vol %
· **Vapour pressure at 20 °C:**	19 hPa
· **Density:**	Not determined.
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with water:**	Not miscible or difficult to mix.
· **Partition coefficient: n-octanol/water:**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solids content:	10.0 %
· **9.2 Other information**	No further relevant information available.

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 according to specifications.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:**
No decomposition products known, more dangerous than the product as such.

*
SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity**
Harmful if swallowed.

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

Oral	LD50	1,870 mg/kg (rat)
Dermal	LD50	5,040 mg/kg (rabbit)

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· ***Primary irritant effect:***
· ***Skin corrosion/irritation*** *May cause skin irritation.*
· ***Serious eye damage/irritation*** *Based on available data, the classification criteria are not met.*
· ***Ingestion:***
It can be harmfull if swallowed.
Harmful if swallowed.
· ***Inhalation:*** *May be harmful if inhaled.*
· ***Respiratory or skin sensitisation*** *Based on available data, the classification criteria are not met.*
· ***Other information (about experimental toxicology):*** *No further relevant information available.*
· ***CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)***
· ***Germ cell mutagenicity*** *Based on available data, the classification criteria are not met.*
· ***Carcinogenicity*** *Based on available data, the classification criteria are not met.*
· ***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.*

SECTION 12: Ecological information

· ***12.1 Toxicity***
· ***Aquatic toxicity:*** *No further relevant information available.*
· ***12.2 Persistence and degradability*** *No further relevant information available.*
· ***Method***
· ***Ecological information*** *The product is easily biodegradable.*
· ***12.3 Bioaccumulative potential*** *No further relevant information available.*
· ***12.4 Mobility in soil*** *No further relevant information available.*
· ***Additional ecological information:***
· ***General notes:***
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· ***12.5 Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*
· ***12.6 Other adverse effects*** *No further relevant information available.*

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.
· ***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.
Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.
· ***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.

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· ***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.

*
SECTION 14: Transport information

· ***14.1 UN-Number***	-
· ***ADR, ADN, IMDG, IATA***	*Void*
· ***14.2 UN proper shipping name***	-
· ***ADR, ADN, IMDG, IATA***	*Void*
· ***14.3 Transport hazard class(es)***	
· ***ADR, ADN, IMDG, IATA***	
· ***Class***	*Void*
· ***14.4 Packing group***	
· ***ADR, IMDG, IATA***	*Void*
· ***14.5 Environmental hazards:***	
· ***Marine pollutant:***	*No*
· ***14.6 Special precautions for user***	*Not applicable.*
· ***14.7 Transport in bulk according to Annex II of Marpol and the IBC Code***	*Not applicable.*
· ***UN "Model Regulation":***	*Void*

SECTION 15: Regulatory information

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

· ***Directive 2012/18/EU***
· ***Named dangerous substances - ANNEX I*** *None of the ingredients is listed.*
· ***REGULATION (EC) No 1907/2006 ANNEX XVII*** *Conditions of restriction: 3*
· ***National regulations:***

· ***Information about limitation of use:*** *-*
· ***Waterhazard class:*** *Water hazard class 1 (Self-assessment): slightly hazardous for water.*
· ***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.

· ***Department issuing SDS:*** *Q.A./Normative*
· ***References***
ECDIN (Environmental Chem. Data and Information Network)
IUCLID (International Uniform Chemical Information Database)
NIOSH - Registry of Toxic Effects of Chemical Substances
Roth - Wassergefährdende Stoffe
Verschueren - Handbook of Environmental Data on Organic Chemicals
ChemDAT - Safety Data Sheets from E.Merck on CD-ROM
Merian - Metals and their compounds in the environment

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· ***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
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4

· ***Sources***
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006, REACH, in 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
ADR2019

· **** Data compared to the previous version altered.***
The sections where alterations took place are marked with an asterisk in the left border.