SAFETY DATA SHEET

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Product Code(s) S21M001
Product Name KCl·C Potassium Chloride Crystals

Other means of identification
Safety data sheet number M00288

Recommended use of the chemical and restrictions on use
Recommended Use Laboratory reagent.
Restrictions on use None.
Uses advised against None

Details of the supplier of the safety data sheet

Supplier Address
Hexis Cientifica Ltda CNPJ: 53.276.010 / 00001-10 Av. Antonieta Piva Barranqueiros, 385 - Industrial District - Jundiai - SP - Phone: 11 4589-2672
Manufacturer Address
Radiometer Analytical S.A. 72 rue d''Alsace 69627 Villeurbanne Cedex, France +33 (0)4 78 03 38 38

Emergency telephone number
Argentina
(+54) 911 2518 5274
United States of America
+1(303) 623-5716 - 24 Hour Service +1(515)232-2533 - 8am - 4pm CST

Section 2: HAZARDS IDENTIFICATION

GHS - Classification
Most Important Hazards
According to ABNT NBR 14725-2

Acute toxicity - Oral	Category 5

Label elements

Signal word - Warning

Hazard statements
H303 - May be harmful if swallowed

Precautionary statements
P312 - Call a POISON CENTER or doctor if you feel unwell

Other Information

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Raw Material/Pure Substance Substance

Chemical Name Potassium chloride
Chemical Family Inorganic salt

CAS No 7447-40-7
Formula KCl

Chemical name	CAS No	Percent Range
Potassium chloride	7447-40-7	100%

Section 4: FIRST AID MEASURES

Description of first aid measures

General advice In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Inhalation Aspiration into lungs can produce severe lung damage.

Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If symptoms persist, call a physician.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, call a physician.

Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Remove from exposure, lie down. Call a POISON CENTER or doctor/physician if you feel unwell. Do not induce vomiting without medical advice.

For emergency responders

Self-protection of the first aider Use personal protective equipment as required. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. See section 8 for more information.

Most important symptoms and effects, both acute and delayed
Symptoms See Section 11: TOXICOLOGICAL INFORMATION.

Indication of any immediate medical attention and special treatment needed
Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media
Carbon dioxide. Dry chemical. Water.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific extinguishing methods
Evacuate area and fight fire from a safe distance.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Specific hazards arising from the chemical
May react violently with. Bromine trifluoride. Oxidizers.

Hazardous combustion products This material will not burn.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Do not touch or walk through spilled material. Ventilate affected area. Use personal protective equipment as required.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Dispose of in accordance with local, state and federal regulations or laws.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off all contaminated clothing and wash it before reuse. Wash hands thoroughly after handling. Regular cleaning of equipment, work area and clothing is recommended.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Legend See section 16 for terms and abbreviations

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards None under normal processing

Environmental exposure controls
Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid		
Gas Under Pressure	Not classified according to GHS criteria		
Appearance	crystalline	**Color**	white
Odor	None	**Odor threshold**	No data available

Property	Values	Remarks • Method
Molecular weight	74.55 g/mole	
pH	7	
Melting point/freezing point	773 °C / 1423 °F	
Boiling point / boiling range	1413 °C / 2575 °F	
Evaporation rate	Not applicable	
Vapor pressure	Not applicable	
Vapor density (air = 1)	Not applicable	
Specific gravity (water = 1 / air = 1)	1.98	
Partition Coefficient (n-octanol/water)	log K_{ow} ~ 0	
Soil Organic Carbon-Water Partition Coefficient	log K_{oc} ~ 0	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Dynamic viscosity	Not applicable	
Kinematic viscosity	Not applicable	

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	347000 mg/L	20 °C / 68 °F

Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
Acids	Soluble	> 1000 mg/L	25 °C / 77 °F
Glycerol	Soluble	> 1000 mg/L	25 °C / 77 °F

Ethyl alcohol	Slightly soluble	> 0.1 mg/L	25 °C / 77 °F
Acetone	Insoluble	< 0.1 mg/L	25 °C / 77 °F
Ether	Insoluble	< 0.1 mg/L	25 °C / 77 °F

Other Information

Metal Corrosivity Not classified as corrosive to metal according to GHS criteria

Steel Corrosion Rate Not applicable

Aluminum Corrosion Rate Not applicable

Volatile Organic Compounds (VOC) Content Not applicable.

Bulk density No data available

Explosive properties Not classified according to GHS criteria.

Explosion data Does not burn, but may melt in a fire, releasing toxic fumes.

Upper explosion limit No data available

Lower explosion limit No data available

Flammable properties Not classified as flammable according to GHS criteria.

Flammability Limit in Air

Upper flammability limit: No data available

Lower flammability limit: No data available

Flash point Not applicable

Method No information available

Oxidizing properties Not classified according to GHS criteria.

Reactivity propeties Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

Section 10: STABILITY AND REACTIVITY

Reactivity propeties
Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

Chemical stability
Stable under normal conditions.

Special dangers of the product
None reported.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials

None known.

Hazardous Decomposition Products
Potassium oxide. Chlorides.

Explosive properties Does not burn, but may melt in a fire, releasing toxic fumes.

Upper explosion limit No data available

Lower explosion limit No data available

Autoignition temperature
No data available

Sensitivity to Mechanical Impact None reported.
Sensitivity to Static Discharge None reported.

Section 11: TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information	May be harmful if swallowed.
Inhalation	No known effect based on information supplied.
Eye contact	No known effect based on information supplied.
Skin contact	No known effect based on information supplied.
Ingestion	May be harmful if swallowed.
Aggravated Medical Conditions	None known.
Toxicologically synergistic products	None known.
Toxicokinetics, metabolism and distribution	This Product is by Weight 100% an Individual Pure Chemical Substance.

Product Acute Toxicity Data This Product is by Weight 100% an Individual Pure Chemical Substance

Oral Exposure Route If available, see ingredient data below

Dermal Exposure Route If available, see ingredient data below

Inhalation (Dust/Mist) Exposure Route If available, see ingredient data below

Inhalation (Vapor) Exposure Route If available, see ingredient data below

Inhalation (Gas) Exposure Route If available, see ingredient data below

Acute Toxicity Estimations (ATE) Not applicable

Ingredient Acute Toxicity Data

Oral Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium chloride (100%) CAS#: 7447-40-7	Rat LD_{50}	2600 mg/kg	None reported	None reported	IUCLID (The International Uniform Chemical Information Database)
Chemical name	**Endpoint type**	**Reported dose**	**Exposure time**	**Toxicological effects**	**Key literature references and sources for data**

Potassium chloride (100%) CAS#: 7447-40-7	Mouse LD_{50}	1500 mg/kg	None reported	None reported	IUCLID (The International Uniform Chemical Information Database)

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Product Specific Target Organ Toxicity Single Exposure Data

Oral Exposure Route If available, see ingredient data below

Dermal Exposure Route If available, see ingredient data below

Inhalation (Dust/Mist) Exposure Route If available, see ingredient data below

Inhalation (Vapor) Exposure Route If available, see ingredient data below

Inhalation (Gas) Exposure Route If available, see ingredient data below

Ingredient Specific Target Organ Toxicity Single Exposure Data

Oral Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium chloride (100%) CAS#: 7447-40-7	Man LD_{Lo}	20 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical name	**Endpoint type**	**Reported dose**	**Exposure time**	**Toxicological effects**	**Key literature references and sources for data**
Potassium chloride (100%) CAS#: 7447-40-7	Man TD_{Lo}	214.29 mg/kg	None reported	**Gastrointestinal** Gas	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Aspiration toxicity
If available, see data below
Kinematic viscosity Not applicable

Product Skin Corrosion/Irritation Data
This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Skin Corrosion/Irritation Data
If available, see data below

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data

Potassium chloride (100%) CAS#: 7447-40-7	None reported	Human	30 mg	20 minutes	Not corrosive or irritating to skin	ECHA (The European Chemicals Agency)

Product Serious Eye Damage/Eye Irritation Data
This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Eye Damage/Eye Irritation Data
If available, see data below

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Potassium chloride (100%) CAS#: 7447-40-7	Standard Draize Test	Rabbit	500 mg	24 hours	Mild eye irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

Sensitization Information

Product Sensitization Data

Skin Sensitization Exposure Route This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Respiratory Sensitization Exposure Route This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Sensitization Data

Skin Sensitization Exposure Route No data available.

Respiratory Sensitization Exposure Route No data available.

Chronic Toxicity Information

Product Specific Target Organ Toxicity Repeat Dose Data

Oral Exposure Route If available, see ingredient data below.

Dermal Exposure Route If available, see ingredient data below.

Inhalation (Dust/Mist) Exposure Route If available, see ingredient data below.

Inhalation (Vapor) Exposure Route If available, see ingredient data below.

Inhalation (Gas) Exposure Route If available, see ingredient data below.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

Oral Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium chloride (100%) CAS#: 7447-40-7	Rat TD_{Lo}	75600 mg/kg	42 days	**Kidney, Ureter, or Bladder** Urine volume increased	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical name	**Endpoint type**	**Reported dose**	**Exposure time**	**Toxicological effects**	**Key literature references and sources for data**
Potassium chloride (100%) CAS#: 7447-40-7	Rat TD_{Lo}	938000 mg/kg	78 weeks	**Kidney, Ureter, or Bladder** Changes in tubules (including acute renal failure, acute tubular necrosis)	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Potassium chloride	7447-40-7	-	-	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of Labor)	Does not apply

Product Carcinogenicity Data This Product is by Weight 100% an Individual Pure Chemical Substance

Oral Exposure Route If available, see ingredient data below

Dermal Exposure Route If available, see ingredient data below

Inhalation (Dust/Mist) Exposure Route If available, see ingredient data below

Inhalation (Vapor) Exposure Route If available, see ingredient data below

Inhalation (Gas) Exposure Route If available, see ingredient data below

Ingredient Carcinogenicity Data

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Product Germ Cell Mutagenicity *invitro* **Data**
This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Germ Cell Mutagenicity *invitro* **Data** If available, see data below

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Potassium chloride (100%) CAS#: 7447-40-7	Mutation in microorganisms	Mouse lymphocyte	2048 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical name	**Test**	**Cell Strain**	**Reported dose**	**Exposure time**	**Results**	**Key literature references and**

						sources for data
Potassium chloride (100%) CAS#: 7447-40-7	DNA damage	Human leukocyte	1 mmol/L	2 hours	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical name	**Test**	**Cell Strain**	**Reported dose**	**Exposure time**	**Results**	**Key literature references and sources for data**
Potassium chloride (100%) CAS#: 7447-40-7	Sister chromatid exchange	Hamster ovary	180 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Product Germ Cell Mutagenicity *invivo* **Data**
This Product is by Weight 100% an Individual Pure Chemical Substance.

Oral Exposure Route If available, see ingredient data below

Dermal Exposure Route If available, see ingredient data below

Inhalation (Dust/Mist) Exposure Route If available, see ingredient data below

Inhalation (Vapor) Exposure Route If available, see ingredient data below

Inhalation (Gas) Exposure Route If available, see ingredient data below

Ingredient Germ Cell Mutagenicity *invivo* **Data**

Oral Exposure Route If available, see data below

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Potassium chloride (100%) CAS#: 7447-40-7	Unscheduled DNA synthesis	Rat	1.5 mg/kg	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Product Reproductive Toxicity Data
This Product is by Weight 100% an Individual Pure Chemical Substance.

Oral Exposure Route If available, see ingredient data below

Dermal Exposure Route If available, see ingredient data below

Inhalation (Dust/Mist) Exposure Route If available, see ingredient data below

Inhalation (Vapor) Exposure Route If available, see ingredient data below

Inhalation (Gas) Exposure Route If available, see ingredient data below

Ingredient Reproductive Toxicity Data

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity Based on the classification principles, not classified as hazardous to the environment

Product Ecological Data This Product is by Weight 100% an Individual Pure Chemical Substance

Aquatic toxicity

Fish If available, see ingredient data below

Crustacea If available, see ingredient data below

Algae If available, see ingredient data below

Terrestrial toxicity

Soil If available, see ingredient data below

Vertebrates If available, see ingredient data below

Invertebrates If available, see ingredient data below

Ingredient Ecological Data

Aquatic toxicity

Fish If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Potassium chloride (100%) CAS#: 7447-40-7	96 hours	*Pimephales promelas*	LC_{50}	880 mg/L	IUCLID (The International Uniform Chemical Information Database)
Chemical name	**Exposure time**	**Species**	**Endpoint type**	**Reported dose**	**Key literature references and sources for data**
Potassium chloride (100%) CAS#: 7447-40-7	96 hours	*Gambusia affinis*	LC_{50}	920 mg/L	IUCLID (The International Uniform Chemical Information Database)

Crustacea If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Potassium chloride (100%) CAS#: 7447-40-7	48 hours	*Daphnia magna*	EC_{50}	83 mg/L	IUCLID (The International Uniform Chemical Information Database)

Algae No data available

Terrestrial toxicity

Soil No data available

Vertebrates No data available

Invertebrates No data available

Other Information

Persistence and degradability
Not readily biodegradable according to GHS criteria.

Product Biodegradability Data
This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Biodegradability Data
Test data reported below

Chemical name	Test method	Biodegradation	Exposure time	Results
Potassium chloride (100%) CAS#: 7447-40-7	Inorganic Salt	None reported	None reported	Not readily biodegradable

Bioaccumulation
None known.

Product Bioaccumulation Data This Product is by Weight 100% an Individual Pure Chemical Substance.

Ingredient Bioaccumulation Data No data available

Additional information

Product Information

Partition Coefficient (n-octanol/water) log K_{ow} ~ 0

Ingredient Information

Chemical name	Partition Coefficient (n-octanol/water)	Method
Potassium chloride (100%) CAS#: 7447-40-7	log K_{ow} ~ 0	No information available

Mobility
Mobility in soil: High mobility. If available, see ingredient data below.

Product Information

Soil Organic Carbon-Water Partition Coefficient log K_{oc} ~ 0

Ingredient Information

Chemical name	Soil Organic Carbon-Water Partition Coefficient	Method

Potassium chloride (100%) CAS#: 7447-40-7	log K_{oc} ~ 0	No information available

Additional information

Water solubility

Product Information

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	347000 mg/L	20 °C / 68 °F

Ingredient Information

Chemical name	Water solubility classification	Water solubility	Water solubility temperature °C	Water solubility temperature °F
Potassium chloride (100%) CAS#: 7447-40-7	Completely soluble	347000 mg/L	20 °C	68 °F

Other adverse effects
No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste from residues/unused products Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Contaminated packaging Dispose of in accordance with federal, state and local regulations. Improper disposal or reuse of this container may be dangerous and illegal.

Section 14: TRANSPORT INFORMATION

U.S. DOT Not regulated

Emergency Response Guide Number Not applicable

IMDG Not regulated

IATA Not regulated

ADR Not regulated

Additional information
There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods.
If the item is not in a reagent set or kit, the classification given above applies.
If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

Section 15: REGULATORY INFORMATION

International Inventories
TSCA Complies
DSL/NDSL Complies

EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
TCSI	Complies
AICS	Complies
NZIoC	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substances Inventory
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

Country Regulations

Brazil
Federal Decree No. 2.657, July 3, 1998
Standard ABNT NBR 14725-3
Ordinance No. 229, May 24, 2011 - Changes to Regulatory Standard No. 26
Standard ABNT NBR 14725-4
Resolution no. 420/2004 - ANTT
Resolution no. 5.232 / 2016 - ANTT
NR 15 Ministry of Labor and Employment
Ordinance no. 1274 / 2003
Federal Decree 3.665 / 2000
Law no. 12.305 / 10
Law no. 10.357 / 2001

Argentina
SRT 3359/2015
Resolution 801/2015
Law of Health and Safety and Work (Law 19,587)
Decree 351/79
Regulatory Law 19587

Columbia
Law 253, 1996: Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.
Resolution 2400/1979: Ministry of Labour and Social Security, ACGIH Exposure Limits.
Decision 602, Andean Regulation for the Control of chemical substances used in the illegal manufacture of narcotic drugs and psychotropic substances.
Law 29/1992: Montreal Protocol on Substances that Deplete the Ozone Layer and its Amendments.
Law 55/1993: Recommendation No. 177 on the International Work Conference on Safety in the Use of Chemical Products at Work.
Law 30/1990: Vienna Convention for the Protection of the Ozone Layer.
Law 55/1993: Convention No. 170 on the General Conference of the ILO.

Uruguay
Law 16.157: Approval of the Montreal Protocol on Substances that Deplete the Ozone Layer.
Law 17.283: Regarding environmental protection and management of hazardous wastes.
Presidential Decree 346/11: Implementation of GHS for all manufactured or distributed products.
Presidential Decree 519/984: Regulates the activities relating to the use of radioactive materials and ionizing radiation throughout the country.

Ecuador

Law No. 37 - Environmental Management Act
NTE INEN 2266:2013 - Requirements for Transport, Storage and Handling of Hazardous Materials
Unified Text of Secondary Legislation of the Environment Ministry: Book VI

Section 16: OTHER INFORMATION

NFPA	**Health hazards** - 0	**Flammability** - 0	**Instability** - 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** - 1	**Flammability** - 0	**Physical Hazards** - 0	**Personal protection** X See section 8 for more information

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

NIOSH IDLH	*Immediately Dangerous to Life or Health*
ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
NDF	*no data*

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value	MAC	Maximum Allowable Concentration
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

NIOSH (RTECS) Number TS8050000

Key literature references and sources for data
See Section 11: TOXICOLOGICAL INFORMATION
See Section 12: ECOLOGICAL INFORMATION

Issue Date 18-Aug-2017

Revision Date 18-Aug-2017

Revision Note None

Restrictions on use None

Training Advice Call a POISON CENTER or doctor/physician if you feel unwell

This material safety data sheet has been prepared according to Brazilian legislation and ABNT NBR 14725:2009

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site

safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

End of Safety Data Sheet