

Date of issue: 24/01/2020

## Safety Data Sheet

 Identification of the substance/mixture and of the company/undertaking Product identifier: Product name: 1mol/L(1N)-Potassium chloride solution SDS No. : A0257E-1 Details of the supplier of the safety data sheet Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD. Address: 3-1, Honmachibashi, Chuo-ku,Osaka ,JAPAN Division: Safety Management Dept. of Chemicals Telephone number: +81-6-6946-8061 FAX: +81-6-6946-1607 e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification

GHS classification and label elements of the product Classification of the substance or mixture (Note) GHS classification without description: Not classified/Classification not possible Label elements No GHS label element

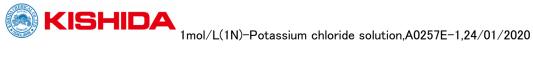
No Signal word

3. Composition/information on ingredients Mixture/Substance selection: Mixture

Ingredient name:Potassium chloride Content (%):7.2 Chemical formula:CIK Chemicals No, Japan:1–228 CAS No.:7447–40–7 MW:74.55 ECNO:231–211–8

Ingredient name:Water Content (%):93 Chemical formula:H2O CAS No.:7732–18–5 MW:18.02 ECNO:231–791–2

Note : The figures shown above are not the specifications of the product. The content of products may exceed the figures shown above.



4 <b>F</b> <sup>1</sup>				
. First-aid measure	-			
-	Descriptions of first-aid measures			
<ul> <li>IF INHALED Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.</li> <li>IF ON SKIN (or hair) Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.</li> <li>IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and eas to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.</li> </ul>				
		IF SWALLOWE	IF SWALLOWED	
		Rinse mo		
		Call a PC	DISON CENTER or doctor/physician if you feel unwell.	
		i. Fire-fighting mea		
		Extinguishing me		
			Suitable extinguishing media	
			opriate extinguishing media suitable for surrounding facilities.	
			Unsuitable extinguishing media data is not available.	
	arising from the substance or mixture			
	-			
	rs may explode when heated.			
	produce irritating, corrosive and/or toxic gases.			
Advice for firefig				
-	ghting measures			
	non-essential personnel to safe area.			
	tive equipment and precautions for fire-fighters			
	/flame resistant/retardant clothing.			
-	tective gloves/protective clothing/eye protection/face protection.			
-	ers should wear self-contained breathing apparatus with full face peace operated			
positive	pressure mode.			
δ. Accidental releas				
	itions, protective equipment and emergency procedures			
	area until material pick up is complete.			
	per protective equipment.			
Environmental pr				
	spills from entering sewers, watercourses or low areas.			
	erials for containment and cleaning up			
Absorb s	pill with inert material (dry sand, earth, et al), then place in a chemical waste			
containe	· · · · · · · · · · · · · · · · · · ·			
Preventive meas	ures for secondary accident			
Collect s	pillago			

Collect spillage.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Protective measures against fire and explosion)

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



(Exhaust/ventilator)
Exhaust/ventilator should be available.
(Safety treatments)
Avoid contact with skin.
Avoid contact with eyes.
Safety Measures
Wear protective gloves, protective clothing or face protection.
When using do not eat, drink or smoke.
Any incompatibilities
See "10.Stability and Reactivity"

Storage
Conditions for safe storage

Keep container tightly closed.

Store in a cool, dry place. Do not store in direct sunlight.

Container and packaging materials for safe handling

Polyethylene

8. Exposure controls/personal protection Control parameters Exposure controls Appropriate engineering controls Do not use in areas without adequate ventilation. Eye wash station should be available. Washing facilities should be available. Individual protection measures Respiratory protection Wear respiratory protection. Hand protection Wear protective gloves. Eye protection Wear eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties Physical state: Liquid Color: Colorless, clear Odor: None pH data is not available. Boiling point or initial boiling point data is not available. Boiling range data is not available. Melting point/Freezing point data is not available. Decomposition temperature data is not available. Flammability (gases, liquids and solids) data is not available. Flash point data is not available. Auto-ignition temperature data is not available. Lower and upper explosion limit/flammability limit data is not available. Vapor pressure data is not available. Relative vapor density (Air=1) data is not available. Density and/or relative density: 1.03g/cm3 Kinematic viscosity data is not available. Solubility:

Solubility in water: Soluble



n-Octanol/water partition coefficient data is not available. No Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity
Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Not available.

Conditions to avoid

Contact with fire source.

Incompatible materials

Not available.

Hazardous decomposition products

Chlorine compounds

11. Toxicological Information Information on toxicological effects Acute toxicity Acute toxicity (Oral) [Company proprietary data] (Potassium chloride) rat LD50=2600 mg/kg (Hazardous Substances Data Bank) rat LD50=3020 mg/kg (Hazardous Substances Data Bank) Irritant properties Skin corrosion/irritation data is not available. Serious eye damage/irritation data is not available. Allergenic and sensitizing effects data is not available. Mutagenic effects data is not available. Carcinogenic effects data is not available. Reproductive toxicity data is not available. STOT STOT-single exposure data is not available. STOT-repeated exposure data is not available. Aspiration hazard data is not available.

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12. Ecological Information

Ecotoxicity
Aquatic toxicity
Aquatic acute toxicity component(s) data
[Company proprietary data]
(Potassium chloride)
Fish(Fathead minnow) LC50= 880mg/L/96hr(Hazardous Substances Data Bank)
Crustacea(Daphnia magna) EC50= 141mg/L/48hr(Hazardous Substances Data Bank)

Water solubility

(Potassium chloride)
good (ICSC, 2003)

Persistence and degradability
Persistence and degradability data is not available.
Bioaccumulative potential
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(Potassium chloride) log Kow=0.15 (PHYSPROP DB, 2005) Mobility in soil Mobility in soil data is not available. Other adverse effects Ozone depleting chemical data is not available.

13. Disposal considerations Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging Waste treatment methods Dispose of contents/container in accordance with local/national regulation.

14. Transport Information

Not applicable to UN No., UN CLASS
Not applicable to IMDG Code
Not applicable to IATA Dangerous Goods Regulations
Environmental hazards
MARPOL Annex III - Prevention of pollution by harmful substances
Marine pollutants (yes/no) : no

Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Non Noxious Liquid ; Cat. OS
Potassium chloride; Water

15. Regulatory Information

regulations.

Safety, health and environmental regulations/legislation specific for the substance or mixture US major regulations TSCA Potassium chloride; Water Other regulatory information Ensure this material in compliance with federal requirements and ensure conformity to local

16. Other information

The product is not applicable to GHS classifications.

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN IMDG Code, 2018 Edition (Incorporating Amendment 39–18) IATA Dangerous Goods Regulations (60th Edition) 2019 Classification, labelling and packaging of substances and mixtures (table3–1 ECNO6182012) 2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT) 2019 TLVs and BEIs. (ACGIH) http://monographs.iarc.fr/ENG/Classification/index.php Supplier's data/information

General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.



The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties. The GHS classification data given here is based on current Japan official data (NITE published in 2018).