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Safety Data Sheet

1. Chemical product and company identification

Product name	:	Potassium carbonate

Company information

Name of manufacturer	:	KANTO CHEMICAL CO., INC.
Address	:	2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, JP
Name of section	:	Business Administration Department, Reagent Division
Telephone number	:	+81-3-6214-1090
Facsimile number	:	+81-3-3241-1047
Mail address	:	BC32@kanto.co.jp
Reference No	:	32323
Product numbers applied by the SDS	:	32107, 32323, 32454
Recommended use	:	For research use only
Restrictions on use	:	Seek expert judgment when using the product for applications other than those recommended.

2. Hazards identification

GHS classification

Health hazards	Acute toxicity (oral)	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Aquatic acute	Category 3
	Aquatic chronic	Category 3

Hazard pictograms

Signal word : Danger

Hazard statements : Harmful if swallowed
Causes skin irritation
Causes serious eye damage
Harmful to aquatic life
Harmful to aquatic life with long lasting effects

Precautionary statements

Prevention : Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

Response : IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
IF ON SKIN: Wash with plenty of water.
IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue

rinsing.
Immediately call a POISON CENTER or doctor.
Specific treatment (see supplemental first aid instruction on this label).
Rinse mouth.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.

Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

3. Composition/information on ingredients

Distinction of substance or mixture : Substance

Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
Potassium carbonate	≥ 97	K2CO3	Listed	209-529-3	584-08-7

4. First aid measures

First aid measures

First-aid measures after inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.

First-aid measures after skin contact : Wash the affected areas under running water.

First-aid measures after eye contact : Wash the affected areas under running water for at least 15 minutes. Get medical treatment.

First-aid measures after ingestion : Rinse mouth with water. Give the victim one or two glasses of water or milk. Do not induce vomiting. Get medical treatment as soon as possible.

Personal Protection in First Aid and Measures : Rescuers should wear proper protective equipment like rubber gloves, goggles.

5. Fire fighting measures

Suitable extinguishing media : This product is noncombustible.

Unsuitable extinguishing media : None

Firefighting instructions : Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.

Personal protection (Emergency response) : Firefighters should wear protective equipment.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures : Wear proper protective equipment and avoid contact with skin and inhalation of dust. Conduct operations from upwind and evacuate people downwind.

Environmental precautions

Environmental precautions : Attention should be given to avoid discharge of spilled product

into rivers and resulting environmental damage. When diluting spill with large amounts of water, discharge of untreated wastewater into the environment must be avoided.

Methods and Equipment for Containment and Cleaning up

For containment : Sweep up in a chemical waste container. Flush contaminated area with copious amounts of water.

7. Handling and storage

Handling

Technical measures : Wear appropriate protective equipment to avoid contact with skin or inhalation of dust.

Precautions for safe handling : Avoid formation of dust and aerosols.
Do not allow contact with acids.

Storage

Storage conditions : As the chemical is deliquescent, keep the bottle tightly closed and store in a cool place.

Material used in packaging/containers : Glass, polyethylene, polypropylene.

8. Exposure controls / Personal protection equipment

ACGIH TWA	Not established

Appropriate engineering controls : Install a local ventilation system in case of dusty condition.

Protective equipment

Respiratory protection : Dust mask

Hand protection : Impervious protective gloves

Eye protection : Safety goggles

Skin and body protection : Protective clothing, protective boots

9. Physical and chemical properties

Physical state : Solid

Color : White

Odor : Odorless

pH : 11.6 (as a 10% aqueous solution)

Melting point : 891 °C

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability : Non flammable.

Vapor pressure : No data available

Relative density : No data available

Density : 2.29 g/cm^3

Relative gas density : No data available

Solubility	:	Water: 112 g/100mL (20℃) Organic solvent: Insoluble in ethanol, acetone.
Partition coefficient n-octanol/water (log Pow)	:	No data available
Explosive limits (vol %)	:	No data available
Viscosity, kinematic	:	No data available
Particle characteristics	:	No data available

10. Stability and reactivity

Reactivity	:	Reacts with acids to produce carbon dioxide. Heat is generated when dissolving in water.
Chemical stability	:	Absorbs carbon dioxide from the air to produce potassium bicarbonate. Deliquescent.
Possibility of hazardous reactions	:	Stable under normal conditions of use.
Conditions to avoid	:	Light, heat, moisture.
Incompatible materials	:	Acids.
Hazardous decomposition products	:	Carbon monoxide.

11. Toxicological information

Acute toxicity (oral)	:	Harmful if swallowed rat LD50=1870 mg/kg
Acute toxicity (dermal)	:	Classification not possible
Acute toxicity (inhalation)	:	No classification (gas) No classification (vapor) Classification not possible (dust, mist)
Skin corrosion/irritation	:	Causes skin irritation The substance was classified as category 2 based on the results of "irritating" in the Draize test using rabbits in which irritation index was 2.5 (maximum value was 8).
Serious eye damage/irritation	:	Causes serious eye damage In In vitro eye irritation test (OECD TG 437, GLP), in vitro irritation score (IVIS) = 118.3 (50% solution), 97 (20% solution), 98 (10% solution), 160.7 (5% solution), 72.1 (3%), 57.4 (1%), 6.1 (0.3%), 3.6 (0.1%), and 1.9 (0.03%) were reported (IVIS>55, category 1). Therefore, it was classified into category 1.
Respiratory sensitization	:	Classification not possible
Skin sensitization	:	Classification not possible
Germ cell mutagenicity	:	Classification not possible Because no in vivo test data available, the classification was not possible. As relevant information, as for in vitro test, there are negative results in the Ames test and the chromosomal aberration test using CHL cells.
Carcinogenicity	:	Classification not possible

Reproductive toxicity	:	Classification not possible In the oral administration tests using pregnant rats and mice during the organogenetic period, there was no clearly discernible effect on nidation or maternal or fetal survival, and the number of abnormalities seen in either internal or skeletal tissues of the test groups did not differ from the number occurring spontaneously in the vehicle-treated controls in both species. However, since there was no data on the sexual functions and fertility of parental animals, the substance was classified as "Classification not possible".
STOT-single exposure	:	Classification not possible Due to alkalinity, this substance might irritate the airway via inhalation.
STOT-repeated exposure	:	Classification not possible
Aspiration hazard	:	Classification not possible

12. Ecological information

Ecotoxicity

Aquatic acute	:	Harmful to aquatic life Oncorhynchus mykiss LC50=68 mg/L/96h
Aquatic chronic	:	Harmful to aquatic life with long lasting effects

Persistence and degradability

No additional information available

Bioaccumulative potential

No additional information available

Mobility in soil

No additional information available

Hazardous to the ozone layer

Ozone	:	Classification not possible

13. Disposal considerations

Ecological waste information	:	Dilute the chemical with a large amount of water and neutralize with dilute acid, then flush in a drain. Or entrust approved waste disposal companies with the disposal. ＊Note that carbon dioxide is produced during neutralization.
Contaminated container and packaging	:	In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

International Regulations

Transport by sea(IMDG)

UN-No. (IMDG)	:	Not applicable
Proper Shipping Name (IMDG)	:	Not applicable
Packing group (IMDG)	:	Not applicable
Transport hazard class(es) (IMDG)	:	Not applicable

Air transport(IATA)

UN-No. (IATA)	:	Not applicable

Proper Shipping Name (IATA)	:	Not applicable
Packing group (IATA)	:	Not applicable
Transport hazard class(es) (IATA)	:	Not applicable
Marine pollutant	:	Not applicable

15. Regulatory information

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

16. Other information

Data sources : NITE Chemical Risk Information Platform (NITE-CHRIP), National Institute of Technology and Evaluation.
ICSC Card (2009) .
Encyclopaedia Chimica, Kyoritsu Shuppan Co, Ltd. (1963) .
Handbook of 17625 Chemical Products, The Chemical Daily Co. (2025) .

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully.The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements.The information herein is only provision of information, and it does not represent a guarantee the properties of the product.The Safety Data Sheet(SDS) is prepared based on JIS Z7253.