Safety Data Sheet

Version 1.4
Revision Date 10/18/2024

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	**Rubidium Chloride, Enriched Rubidium**
Chemical Formula	RbCl
Molecular Weight	120.92
CAS No.	7791-11-9
EINECS No.	232-240-9
Supplier Address*	ISOFLEX USA PO Box 472615 San Francisco CA 94147 United States
Telephone	+1 415-440-4433
Fax	+1 415-563-4433
Emergency Phone Number (both supplier and manufacturer)	Infotrac/ +1 800-535-5053 *May include subsidiaries or affiliate companies/divisions
Email	iusa@isoflex.com
Website	www.isoflex.com
Preparation Information	ISOFLEX USA Product Safety +1 415-440-4433

2. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: White crystalline powder

Caution! Hygroscopic. The toxicological properties of this material have not been fully investigated. This substance has caused adverse reproductive and fetal effects in animals. May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Target Organs: No data found.

NFPA Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 0 **Flammability = 0** **Reactivity = 0**

HMIS Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 1 **Flammability = 0** **Physical Hazard = 0**

HEALTH HAZARD	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

Potential Health Effects

Eye	May cause eye irritation
Skin	May cause skin irritation
Ingestion	Ingestion of large amounts may cause gastrointestinal irritation. The toxicological properties of this substance have not been fully investigated.
Inhalation	Dust is irritating to the respiratory tract. The toxicological properties of this substance have not been fully investigated.
Chronic	No information found

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	Rubidium Chloride
CAS No.	7791-11-9
Chemical Formula:	RbCl
Molecular Weight:	120.92

4. FIRST AID MEASURES

Eye Exposure	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Dermal Exposure	Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Oral Exposure	Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Inhalation Exposure	Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician	Treat symptomatically.

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Runoff from fire control or dilution water may cause pollution.
Autoignition Temp	Not applicable
Flash Point	Not applicable
Explosion Limits, Lower	Not available
Explosion Limits, Upper	Not available
Suitable Extinguishing Media	Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use proper personal protective equipment as indicated in Section 8.

Environmental Precautions Do not let product enter drains.

Methods for Cleaning Up Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

7. HANDLING AND STORAGE

Handling Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin Wear appropriate protective gloves to prevent skin exposure.

Clothing Wear appropriate protective clothing to prevent skin exposure.

Respirators Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State	Solid
Form	Crystalline powder
Color	White
Odor	Not available

Safety Data

pH:	Not available	Solubility in water:	910 g/l (20 c) in water
Vapor Pressure:	Not applicable	Boiling Point:	1390 °C @ 760.00 mm Hg
Vapor Density:	Not available	Freezing/Melting Point:	718 °C
Evaporation Rate:	Not applicable	Viscosity:	Not available

Molecular Formula: RbCl
Molecular Weight: 120.92

Specific Gravity/Density: 2.8000g/cm^3

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10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal temperatures and pressures
Conditions to Avoid	Incompatible materials, dust generation, excess heat, exposure to moist air or water
Incompatible Materials	Moisture
Hazardous Decomposition Products	Irritating and toxic fumes and gases, oxides of rubidium
Hazardous Polymerization	Has not been reported

11. TOXICOLOGICAL INFORMATION

RTECS No.	VL8575000
CAS No.	7791-11-9
LD50/LC50	Not available

Carcinogenicity

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology	No information available
Teratogenicity	No information available
Reproductive Effects	No information available
Neurotoxicity	No information available
Mutagenicity	No information available
Other Studies	See actual entry in RTECS for complete information

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12. ECOLOGICAL INFORMATION

Toxicity	No data available
Persistence and Degradability	No data available
Bioaccumulative Potential	No data available
Mobility in Soil	No data available
PBT and vPvB Assessment	No data available
Other Adverse Effects	No data available

13. DISPOSAL CONSIDERATIONS

Product	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.
Contaminated Packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

Non-hazardous for air, sea and road freight

15. REGULATORY INFORMATION

OSHA Hazards	No known OSHA hazards
SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	No SARA 311/312 hazards
Massachusetts Right to Know Components	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right to Know Components	Rubidium chloride / *CAS No.* 7791-11-9
New Jersey Right tTo Know Components	Rubidium chloride / *CAS No.* 7791-11-9
California Prop. 65 Components	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Prepared By	ISOFLEX USA PO Box 472615 San Francisco CA 94147 United States
Issuing Date	January 12, 2014
Revision Date	October 18, 2024
Revision Number	4
Revision Note	Update supplier address

ISOFLEX USA's Commonly Used Abbreviations and Acronyms*

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
ALARA	As Low As Is Reasonably Achievable
AMU	Atomic Mass Unit
ANSI	American National Standards Institute
BLS	Basic Life Support
CAM	Continuous Air Monitor
CAS	Chemical Abstracts Service (division of the American Chemical Society)
CEN	European Committee for Standardization
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CLP	Classification, Labelling and Packaging (European Union)
CPR	Controlled Products Regulations (Canada)
CWA	Clean Water Act (USA)

DAC	Derived Air Concentration (USA)
DOE	United States Department of Energy (USA)
DOT	United States Department of Transportation (USA)
DSL	Domestic Substances List (Canada)
EC50	Half Maximal Effective Concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
EHS	Environmentally Hazardous Substance
ELINCS	European List of Notified Chemical Substances
EMS	Emergency Response Procedures for Ships Carrying Dangerous Goods
EPA	Environmental Protection Agency (USA)
EPCRA	Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986
GHS	Globally Harmonized System
HMIS	Hazardous Materials Identification System (USA)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Containers
ICAO	International Civil Aviation Organization
IDLH	Immediately Dangerous to Life or Health
IMDG	International Maritime Code for Dangerous Goods
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
LDLO	Lethal Dose Low
LOEC	Lowest-Observed-Effective Concentration
MARPOL	International Convention for the Prevention of Pollution from Ships
MSHA	Mine Safety and Health Administration (USA)
NCRP	National Council on Radiation Protection & Measurements (USA)
NDSL	Non-Domestic Substances List (Canada)
NFPA	National Fire Protection Association (USA)
NIOSH	National Institute for Occupational Safety and Health (USA)
NOEC	No Observed Effect Concentration
N.O.S.	Not Otherwise Specified
NRC	Nuclear Regulatory Commission (USA)
NTP	National Toxicology Program (USA)
OSHA	Occupational Safety and Health Administration (USA)
PBT	Persistent Bioaccumulative and Toxic Chemical
PEL	Permissible Exposure Limit
PIH	Poisonous by Inhalation Hazard
RCRA	Resource Conservation and Recovery Act (USA)
RCT	Radiation Control Technician
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Europe)
RID	Regulations Concerning the International Transport of Dangerous Goods by Rail
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments and Reauthorization Act (USA)
TDG	Transportation of Dangerous Goods (Canada)
TIH	Toxic by Inhalation Hazard
TLV	Threshold Limit Value
TPQ	Threshold Planning Quantity
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
UN	United Nations (Number)
VOC	Volatile Organic Compound
vPvB	Very Persistent Very Bioaccumulative Chemical
WGK	Wassergefährdungsklassen (Germany: Water Hazard Classes)
WHMIS	Workplace Hazardous Materials Information System

*One or more of the above-listed items may not appear in this document.

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