

Potassium nitrate**12648-2.5KG**

Version 1.1

Revision Date 12/08/2021

Print Date 05/11/2023

SECTION 1. IDENTIFICATION

Product name : Potassium nitrate

Number : 000000020907

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.
1953 South Harvey Street
Muskegon, MI 49442

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : crystalline

Color : colourless

Odor : odourless

Classification of the substance or mixture

Classification of the substance : Oxidizing solids, Category 3
or mixture

GHS Label elements, including precautionary statements

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Symbol(s)

:



Signal word

: Warning

Hazard statements

: May intensify fire; oxidizer.

Precautionary statements

: **Prevention:**

Keep away from heat.

Keep/ Store away from clothing/ combustible materials.

Take any precaution to avoid mixing with combustibles.

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified

: Repeated or prolonged exposure may irritate eyes, skin and respiratory system.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula

: KNO₃

Chemical nature

: Substance

Chemical name

CAS-No.

Concentration

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Potassium nitrate

7757-79-1

100.00 %

SECTION 4. FIRST AID MEASURES

- General advice : Show this safety data sheet to the doctor in attendance.
- Inhalation : If inhaled, remove to fresh air. Consult a physician.
- Skin contact : After contact with skin, wash immediately with plenty of water.
- Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Ingestion : Rinse mouth with water. Call a physician immediately.

Notes to physician

- Most important symptoms/effects, acute and delayed : No information available.
- Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry powder
- Specific hazards during firefighting : May intensify fire; oxidizer.
In fires, the product supports combustion.
In case of fire hazardous decomposition products may be produced such as:
Potassium oxide
Nitrogen oxides (NO_x)
- Special protective equipment : Wear self-contained breathing apparatus and protective suit.

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for firefighters

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Wear personal protective equipment.
Evacuate personnel to safe areas.
Ensure adequate ventilation.
Avoid dust formation.
Avoid breathing dust.
Avoid contact with skin, eyes and clothing.

Environmental precautions : Should not be released into the environment.

Methods and materials for containment and cleaning up : Use mechanical handling equipment.
Sweep up and shovel into suitable containers for disposal.
Do not pick up with the help of saw-dust or other combustible substances.
Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe handling : Wear personal protective equipment.
Use only in well-ventilated areas.
Avoid inhalation, ingestion and contact with skin and eyes.

Advice on protection against fire and explosion : Keep away from easily oxidizable materials.
Keep away from combustible material.

Storage

Conditions for safe storage, including any incompatibilities : Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in original container.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Avoid breathing dust.
Avoid contact with skin, eyes and clothing.
- Engineering measures : Use with local exhaust ventilation.
- Eye protection : Tightly fitting safety goggles
- Hand protection : Impervious gloves
Gloves must be inspected prior to use.
Replace when worn.
- Skin and body protection : Protective suit
- Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
- Hygiene measures : When using, do not eat, drink or smoke.
Wash hands before breaks and at the end of workday.
Keep working clothes separately.
Remove and wash contaminated clothing before re-use.

Exposure Guidelines

Contains no substances with occupational exposure limit values.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : crystalline
- Color : colourless
- Odor : odourless
- Odor threshold : Note: No data available
- pH : 5.5 - 7.5 at 50.00 g/l, 20 °C

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Melting point/range	: 335 °C at 1,013 hPa
Boiling point/boiling range	: Note: Not applicable, Decomposition
Flash point	: Note: Not applicable
Evaporation rate	: Note: No data available
Flammability	: The product is not flammable.
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapor pressure	: Note: No data available
Vapor density	: Note: No data available
Density	: ca. 2.11 g/cm ³ at 20 °C
Water solubility	: 357 g/l at 25 °C
Partition coefficient: n-octanol/water	: Note: Not applicable
Ignition temperature	: Note: Not applicable
Auto-ignition temperature	: Note: not auto-flammable
Viscosity, dynamic	: Note: Not applicable

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Viscosity, kinematic	: Note: Not applicable
Oxidizing properties	: The substance or mixture is classified as oxidizing with the category 3.
Molecular weight	: 101 g/mol
Bulk density	: ca. 1,500 kg/m ³

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: May intensify fire; oxidizer.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Keep away from reducing agents. Avoid contact with combustible material (paper, wool, oil). Keep away from combustible material.
Incompatible materials	: Cyanides Thiocyanates Acids Heavy metals Reducing agents Combustible material
Hazardous decomposition products	: Nitrous gases Oxygen

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50: > 2,000 mg/kg Species: Rat, male and female
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Method: OECD Test Guideline 425

Acute inhalation toxicity : LC50: > 0.527 mg/l
Exposure time: 4 h
Species: Rat, male and female
Method: OECD Test Guideline 403
Note: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50: > 5,000 mg/kg
Species: Rat, male and female
Method: OECD Test Guideline 402

Skin irritation : Note: No data available

Eye irritation : Species: Bovine cornea
Result: No eye irritation
Classification: non-irritant
Method: OECD Test Guideline 437
Exposure time: 4 h

Sensitisation : Note: No data available

Repeated dose toxicity : Species: Rat
Application Route: Oral
Exposure time: 28 d
NOAEL:
NOAEL (No observed adverse effect level): $\geq 1,500$ mg/kg
Method: OECD Test Guideline 422

Genotoxicity in vitro : Test Method: Ames test
Metabolic activation: with and without metabolic activation
Result: negative

: Cell type: mammalian cells
Result: negative

: Cell type: Chinese hamster fibroblasts

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	Result: negative
Genotoxicity in vivo	: Species: Rat Application Route: Oral Result: negative
Reproductive toxicity	: Species: Rat, male and female Application Route: Oral Dose: >=1500 mg/kg No observed adverse effect level:
Teratogenicity	: Species: Rat Application Route: Oral Note: Did not show teratogenic effects in animal experiments.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish	: LC50: 1,378 mg/l Exposure time: 96 h Species: Poecilia reticulata (guppy) Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50: 490 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)
Toxicity to algae	: EC50: > 1,700 mg/l Exposure time: 240 h Species: Algae

Elimination information (persistence and degradability)

Biodegradability	: Note: Not applicable
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Further information on ecology

Additional ecological information : We have no quantitative data concerning the ecological effects of this product.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT UN/ID No. : UN 1486
Proper shipping name : POTASSIUM NITRATE
Class : 5.1
Packing group : III
Hazard Labels : 5.1

IATA UN/ID No. : UN 1486
Description of the goods : POTASSIUM NITRATE
Class : 5.1
Packaging group : III
Hazard Labels : 5.1
Packing instruction (cargo aircraft) : 563
Packing instruction (passenger aircraft) : 559
Packing instruction (passenger aircraft) : Y546

IMDG UN/ID No. : UN 1486
Description of the goods : POTASSIUM NITRATE
Class : 5.1
Packaging group : III
Hazard Labels : 5.1
EmS Number : F-A, S-Q
Marine pollutant : no

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SECTION 15. REGULATORY INFORMATION**Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemicals Act (AICC), as amended : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS) : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC) : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

National regulatory information

SARA 302 Components : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components : The following components are subject to reporting levels established by SARA Title III, Section 313:

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SARA 311/312 Hazards	:	Reactivity Hazard Acute Health Hazard Chronic Health Hazard	
California Prop. 65	:	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.	
Massachusetts RTK	:	Potassium nitrate	7757-79-1
New Jersey RTK	:	Potassium nitrate	7757-79-1
Pennsylvania RTK	:	Potassium nitrate	7757-79-1

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 1	1
Flammability	: 0	0
Physical Hazard	: 1	
Instability	:	1
Special hazard	:	OX

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of

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the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group