Chemical Safety Data Sheet

SECTION 1 IDENTIFICATION

GHS Product identifier: Potassium nitrate.

Other means of identification: /

Recommended use of the chemical and restrictions on use: /

Supplier's details: /

Emergency phone number: /

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or

mixture Oxidizing Solids Category 3.

Acute Toxicity - Oral Category 4.

Skin Corrosion/Irritation Category 3.

Serious Eye Damage/Eye Irritation Category 2A.

GHS Label elements, including precautionary statements





Signal word: Warning.

Hazard statement(s): May intensify fire; oxidizer. Harmful if swallowed. Causes mild skin irritation.

Causes serious eye irritation.

Precautionary satement(s):

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. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Response:

In case of fire: Use flooding quantities of water to extinguish. IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth. If skin irritation occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage:/

Disposal:

Dispose of contents/container to...

Other hazards which do not result in classification: /

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
Potassium nitrate	7757-79-1	99.4

Description of necessary first aid measures

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: If swallowed do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: /

Indication of immediate medical attention and special treatment needed: /

SECTION 5 FIREFIGHTING MEASURES

Suitable extinguishing media: FOR SMALL FIRE: USE FLOODING QUANTITIES OF WATER. DO NOT use dry chemical, CO₂, foam or halogenated-type extinguishers. FOR LARGE FIRE: Flood fire area with water from a protected position.

Special hazards arising from the chemical: Will not burn but increases intensity of fire. Heating may cause expansion or decomposition leading to violent rupture of containers. Heat affected containers remain hazardous. Contact with combustibles such as wood, paper, oil or finely divided metal may produce spontaneous combustion or violent decomposition. May emit irritating, poisonous or corrosive fumes.

Special protective actions for fire-fighters: Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water courses. Fight fire from a safe distance, with adequate cover. Extinguishers should be used only by trained personnel. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Clean up all spills immediately. No smoking, naked lights, ignition sources. Avoid all contact with any organic matter including fuel, solvents, sawdust, paper or cloth and other incompatible materials, as ignition may result. Avoid breathing dust or vapours and all contact with skin and eyes. Control personal contact with the substance, by using protective equipment.

Environmental precautions: Prevent, by any means available, spillage from entering drains or water courses.

Methods and materials for containment and cleaning up: Contain spill with sand, earth or other clean, inert materials. NEVER USE organic absorbents such as sawdust, paper or cloth. Use spark-free and explosion-proof equipment. Collect any recoverable product into labelled containers for possible recycling. Avoid contamination with organic matter to prevent subsequent fire and explosion. DO NOT mix fresh with recovered material. Collect residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling: Avoid personal contact and inhalation of dust, mist or vapours. Provide adequate ventilation. Always wear protective equipment and wash off any spillage from clothing. Keep material away from light, heat, flammables or combustibles. Keep cool, dry and away from incompatible materials. Avoid physical damage to containers.

Conditions for safe storage, including any incompatibilities: Store in original containers. Keep containers securely sealed as supplied. Store in a cool, well ventilated area. Keep dry. Store under cover and away from sunlight. Store away from flammable or combustible materials, debris and waste. Contact may cause fire or violent reaction. Store away from incompatible materials and foodstuff containers. DO NOT stack on wooden floors or pallets. Protect containers from physical damage. Check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
Potassium nitrate	1 ppm	3.5 ppm	20 ppm	500 ppm

Appropriate engineering controls: Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances.

Personal protective equipment

Eye/face protection: Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

Skin protection: Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber. The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

Respiratory protection: Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

Thermal hazards: /

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White powder
Odour	
Odour Threshold	MAN BIIDIN
pH	/ 1 / 1 / 1 / 1 1 1
Melting point/freezing point	334℃
Initial boiling point and boiling range	/
Flash point Evaporation	/
rate Flammability (solid,	/
gas)	/
Upper/lower flammability or explosive limits	/
Vapour pressure	/
Vapour density	/
Relative density	2.11(water=1)
Water solubility	/
Partition coefficient: noctanol/water	/
Autoignition temperature	/
Decomposition temperature	/
Viscosity	/

SECTION 10 STABILITY AND REACTIVITY

Reactivity: /

Chemical stability: Product is considered stable under normal handling conditions.

Possibility of hazardous reactions: Inorganic oxidising agents can react with reducing agents to generate heat and products that may be gaseous (causing pressurization of closed containers). Organic compounds in general have some reducing power and can in principle react with compounds in this class. Inorganic oxidising agents can react violently with active metals, cyanides, esters, and thiocyanates.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: Reducing agents, active metals, cyanides, esters, and thiocyanates.

Hazardous decomposition products: Nitrogen oxides (NO_x), Metal oxides.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure: Inhaled, Ingestion, skin, eyes.

Symptoms related to the physical, chemical and toxicological characteristics: /

Acute health effects

Inhalation: The material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation.

Ingestion: Accidental ingestion of the material may be harmful.

Skin: The material produces inflammation of the skin in a substantial number of individuals following direct contact.

Eyes: The material may cause **eye** irritation in a substantial number of individuals and/or may produce significant ocular lesions.

Chronic health effects: /

Numerical measures of toxicity (such as acute toxicity estimates):

TOXICITY IRRITATION

Oral (rat) LD₅₀: 3750 mg/kg Nil reported

Oral (rabbit) LD₅₀: 1901 mg/kg

SECTION 12 ECOLOGICAL INFORMATION

Toxicity: /

 $\label{persistence} \textbf{Persistence and degradability:} \ /$

Bioaccumulative potential: /

Mobility in soil: /

Other adverse effects: /

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal methods: Recycle wherever possible or consult manufacturer for recycling options. Consult Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Recycle containers if possible, or dispose of in an authorised landfill.

UN number: 1486.

UN proper shipping name: POTASSIUM NITRATE.

Transport hazard class(es): 5.1.

Packaging group: ||| Environmental hazards: / Special precautions for user: /

SECTION 15 REGULATORY INFORMATION

Regulations:

This safety data sheet is in compliance with the following national standards: GB16483-2008, GB13690-2009, GB18218-2009, GB15258-2009, GB6944-2012, GB190-2009, GB191-2009, GB12268-2008, GA57-1993, GB/T 15098-2008, GBZ 2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation, Dangerous Chemicals Safety Administrative Regulation.

SECTION 16 OTHER INFORMATION

References	"Model Regulations on the Transport of Dangerous Goods" "The Globally Harmonized System of Classification and Labelling of Chemicals"
Form Date	31- July -2014

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information (such as boiling point does not exist for

