



UNIVAR

Univar USA Inc.
6100 Carillon Point
Kirkland, WA 98033
(425) 889-3400

For Emergency Assistance involving chemicals call - CHEMTREC (800) 424-9300

=====

The Version Date for this MSDS is : 08/30/2004

PRODUCT NAME: POTASSIUM NITRATE
 MSDS NUMBER: MZP5950
 DATE ISSUED: 8/27/2004
 SUPERSEDES: 12/4/2001
 ISSUED BY: 008614

=====

POTASSIUM NITRATE

=====

1. PRODUCT IDENTIFICATION

SYNONYMS: SALTPETER; NITER; NITRIC ACID, POTASSIUM SALT
 CAS NO: 7757-79-1
 MOLECULAR WEIGHT: 101.1
 CHEMICAL FORMULA: KNO3

Distributed by:
 Univar USA Inc.
 6100 Carillon Point
 Kirkland, WA 98033
 425-889-3400

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO	PERCENT	HAZARDOUS
POTASSIUM NITRATE	7757-79-1	99 - 100%	YES

=====

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.
HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION
TO SKIN, EYES AND RESPIRATORY TRACT.

POTENTIAL HEALTH EFFECTS

INHALATION:

CAUSES IRRITATION TO THE RESPIRATORY TRACT. SYMPTOMS MAY INCLUDE COUGHING,
SHORTNESS OF BREATH.

INGESTION:

CAUSES IRRITATION TO THE GASTROINTESTINAL TRACT. SYMPTOMS MAY INCLUDE
NAUSEA, VOMITING AND DIARRHEA. MAY CAUSE GASTROENTERITIS AND ABDOMINAL
PAINS. PURGING AND DIURESIS CAN BE EXPECTED. RARE CASES OF NITRATES BEING
CONVERTED TO THE MORE TOXIC NITRITES HAVE BEEN REPORTED, MOSTLY WITH
INFANTS.

SKIN CONTACT:

CAUSES IRRITATION TO SKIN. SYMPTOMS INCLUDE REDNESS, ITCHING, AND PAIN.

EYE CONTACT:

CAUSES IRRITATION, REDNESS, AND PAIN.

CHRONIC EXPOSURE:

UNDER SOME CIRCUMSTANCES METHEMOGLOBINEMIA OCCURS IN INDIVIDUALS WHEN THE
NITRATE IS CONVERTED BY BACTERIA IN THE STOMACH TO NITRITE. NAUSEA,
VOMITING, DIZZINESS, RAPID HEART BEAT, IRREGULAR BREATHING, CONVULSIONS,
COMA, AND DEATH CAN OCCUR SHOULD THIS CONVERSION TAKE PLACE. CHRONIC
EXPOSURE TO NITRITES MAY CAUSE ANEMIA AND ADVERSE EFFECTS TO KIDNEY.

AGGRAVATION OF PRE-EXISTING CONDITIONS:

NO INFORMATION FOUND.

=====
4. FIRST AID MEASURES

INHALATION:

REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF
BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION.

INGESTION:

INDUCE VOMITING IMMEDIATELY AS DIRECTED BY MEDICAL PERSONNEL. NEVER GIVE
ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION.

SKIN CONTACT:

IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE
REMOVING CONTAMINATED CLOTHING AND SHOES. GET MEDICAL ATTENTION. WASH
CLOTHING BEFORE REUSE. THOROUGHLY CLEAN SHOES BEFORE REUSE.

EYE CONTACT:

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES,
LIFTING LOWER AND UPPER EYELIDS OCCASIONALLY. GET MEDICAL ATTENTION
IMMEDIATELY.

=====
5. FIRE FIGHTING MEASURES

FIRE:

NOT COMBUSTIBLE, BUT SUBSTANCE IS A STRONG OXIDIZER AND ITS HEAT OF REACTION WITH REDUCING AGENTS OR COMBUSTIBLES MAY CAUSE IGNITION.

EXPLOSION:

SOME NITRATES MAY EXPLODE WHEN SHOCKED, EXPOSED TO HEAT OR FLAME, OR BY SPONTANEOUS CHEMICAL REACTION. SEALED CONTAINERS MAY RUPTURE WHEN HEATED. SENSITIVE TO MECHANICAL IMPACT.

FIRE EXTINGUISHING MEDIA:

DRY CHEMICAL, CARBON DIOXIDE, HALON, WATER SPRAY, OR FOG. IF WATER IS USED, APPLY FROM AS FAR A DISTANCE AS POSSIBLE. WATER SPRAY MAY BE USED TO KEEP FIRE EXPOSED CONTAINERS COOL. DO NOT ALLOW WATER RUNOFF TO ENTER SEWERS OR WATERWAYS.

SPECIAL INFORMATION:

WEAR FULL PROTECTIVE CLOTHING AND BREATHING EQUIPMENT FOR HIGH-INTENSITY FIRE OR POTENTIAL EXPLOSION CONDITIONS. THIS OXIDIZING MATERIAL CAN INCREASE THE FLAMMABILITY OF ADJACENT COMBUSTIBLE MATERIALS.

=====

6. ACCIDENTAL RELEASE MEASURES

REMOVE ALL SOURCES OF IGNITION. VENTILATE AREA OF LEAK OR SPILL. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT AS SPECIFIED IN SECTION 8. SPILLS: CLEAN UP SPILLS IN A MANNER THAT DOES NOT DISPERSE DUST INTO THE AIR. USE NON-SPARKING TOOLS AND EQUIPMENT. REDUCE AIRBORNE DUST AND PREVENT SCATTERING BY MOISTENING WITH WATER. PICK UP SPILL FOR RECOVERY OR DISPOSAL AND PLACE IN A CLOSED CONTAINER.

=====

7. HANDLING AND STORAGE

KEEP IN A TIGHTLY CLOSED CONTAINER, STORED IN A COOL, DRY, VENTILATED AREA. PROTECT AGAINST PHYSICAL DAMAGE AND MOISTURE. ISOLATE FROM ANY SOURCE OF HEAT OR IGNITION. AVOID STORAGE ON WOOD FLOORS. SEPARATE FROM INCOMPATIBLES, COMBUSTIBLES, ORGANIC OR OTHER READILY OXIDIZABLE MATERIALS. CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTY SINCE THEY RETAIN PRODUCT RESIDUES (DUST, SOLIDS); OBSERVE ALL WARNINGS AND PRECAUTIONS LISTED FOR THE PRODUCT.

=====

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS:
NONE ESTABLISHED.

VENTILATION SYSTEM:

A SYSTEM OF LOCAL AND/OR GENERAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURES AS LOW AS POSSIBLE. LOCAL EXHAUST VENTILATION IS GENERALLY PREFERRED BECAUSE IT CAN CONTROL THE EMISSIONS OF THE CONTAMINANT AT ITS SOURCE, PREVENTING DISPERSION OF IT INTO THE GENERAL WORK AREA. PLEASE REFER TO THE ACGIH DOCUMENT, "INDUSTRIAL VENTILATION, A MANUAL OF RECOMMENDED PRACTICES", MOST RECENT EDITION, FOR DETAILS.

PERSONAL RESPIRATORS (NIOSH APPROVED):
FOR CONDITIONS OF USE WHERE EXPOSURE TO DUST OR MIST IS APPARENT AND

ENGINEERING CONTROLS ARE NOT FEASIBLE, A PARTICULATE RESPIRATOR (NIOSH TYPE N95 OR BETTER FILTERS) MAY BE WORN. IF OIL PARTICLES (E.G. LUBRICANTS, CUTTING FLUIDS, GLYCERINE, ETC.) ARE PRESENT, USE A NIOSH TYPE R OR P FILTER. FOR EMERGENCIES OR INSTANCES WHERE THE EXPOSURE LEVELS ARE NOT KNOWN, USE A FULL-FACE POSITIVE-PRESSURE, AIR-SUPPLIED RESPIRATOR. WARNING: AIR-PURIFYING RESPIRATORS DO NOT PROTECT WORKERS IN OXYGEN-DEFICIENT ATMOSPHERES.

SKIN PROTECTION:

WEAR IMPERVIOUS PROTECTIVE CLOTHING, INCLUDING BOOTS, GLOVES, LAB COAT, APRON OR COVERALLS, AS APPROPRIATE, TO PREVENT SKIN CONTACT.

EYE PROTECTION:

USE CHEMICAL SAFETY GOGGLES AND/OR FULL FACE SHIELD WHERE DUSTING OR SPLASHING OF SOLUTIONS IS POSSIBLE. MAINTAIN EYE WASH FOUNTAIN AND QUICK-DRENCH FACILITIES IN WORK AREA.

=====

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:
WHITE CRYSTALS.

BOILING POINT:
400C (752F)

ODOR:
ODORLESS.

MELTING POINT:
333C (631F)

SOLUBILITY:
36 GM/L00 ML WATER

VAPOR DENSITY (AIR=1):
3.00

SPECIFIC GRAVITY:
2.1

VAPOR PRESSURE (MM HG):
NEGLIGIBLE @ 20C

PH:
CA. 7

EVAPORATION RATE (BUAC=1):
NO INFORMATION FOUND.

% VOLATILES BY VOLUME @ 21C (70F):
0

=====

10. STABILITY AND REACTIVITY

STABILITY:

STABLE UNDER ORDINARY CONDITIONS OF USE AND STORAGE.

HAZARDOUS DECOMPOSITION PRODUCTS:

OXIDES OF NITROGEN AND TOXIC METAL FUMES MAY FORM WHEN HEATED TO DECOMPOSITION.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

INCOMPATIBILITIES:

HEAVY METALS, PHOSPHITES, ORGANIC COMPOUNDS, CARBONACEOUS MATERIALS, STRONG ACIDS, AND MANY OTHER SUBSTANCES.

CONDITIONS TO AVOID:

HEAT, FLAMES, IGNITION SOURCES AND INCOMPATIBLES.

=====

11. TOXICOLOGICAL INFORMATION

ORAL RAT LD50: 3750 MG/KG. INVESTIGATED AS A MUTAGEN, REPRODUCTIVE EFFECTOR.

-----/CANCER LISTS/-----

INGREDIENT	---NTP CARCINOGEN---		IARC CATEGORY
	KNOWN	ANTICIPATED	
POTASSIUM NITRATE (7757-79-1)	NO	NO	NONE

=====

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:
NO INFORMATION FOUND.

ENVIRONMENTAL TOXICITY:
NO INFORMATION FOUND.

=====

13. DISPOSAL CONSIDERATIONS

WHATEVER CANNOT BE SAVED FOR RECOVERY OR RECYCLING SHOULD BE HANDLED AS HAZARDOUS WASTE AND SENT TO A RCRA APPROVED WASTE FACILITY. PROCESSING, USE OR CONTAMINATION OF THIS PRODUCT MAY CHANGE THE WASTE MANAGEMENT OPTIONS. STATE AND LOCAL DISPOSAL REGULATIONS MAY DIFFER FROM FEDERAL DISPOSAL REGULATIONS.

DISPOSE OF CONTAINER AND UNUSED CONTENTS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS.

=====

14. TRANSPORT INFORMATION

DOMESTIC (LAND, D.O.T.)

PROPER SHIPPING NAME: POTASSIUM NITRATE
HAZARD CLASS: 5.1
UN/NA: UN1486 PACKING GROUP: III

INTERNATIONAL (WATER, I.M.O.)

PROPER SHIPPING NAME: POTASSIUM NITRATE
HAZARD CLASS: 5.1
UN/NA: UN1486 PACKING GROUP: III

=====

15. REGULATORY INFORMATION

-----/CHEMICAL INVENTORY STATUS - PART 1/-----

INGREDIENT	TSCA	EC	JAPAN	AUSTRALIA
POTASSIUM NITRATE (7757-79-1)	YES	YES	YES	YES

-----/CHEMICAL INVENTORY STATUS - PART 2/-----

INGREDIENT	KOREA	--CANADA--		
		DSL	NDSL	PHIL.
POTASSIUM NITRATE (7757-79-1)	YES	YES	NO	YES

-----/FEDERAL, STATE & INTERNATIONAL REGULATIONS - PART 1/-----

INGREDIENT	-SARA 302-		-----SARA 313-----	
	RQ	TPQ	LIST	CHEMICAL CATG
POTASSIUM NITRATE (7757-79-1)	NO	NO	NO	NITRATE CMPD.

-----/FEDERAL, STATE & INTERNATIONAL REGULATIONS - PART 2/-----

INGREDIENT	CERCLA	-RCRA-	-TSCA-
		261.33	8(D)
POTASSIUM NITRATE (7757-79-1)	NO	NO	NO

CHEMICAL WEAPONS CONVENTION: NO TSCA 12(B): NO CDTA: NO
 SARA 311/312: ACUTE: YES CHRONIC: YES FIRE: YES PRESSURE: NO
 REACTIVITY: NO (PURE / SOLID)

AUSTRALIAN HAZCHEM CODE: 1(T)
 POISON SCHEDULE: NONE ALLOCATED.

WHMIS: THIS MSDS HAS BEEN PREPARED ACCORDING TO THE HAZARD CRITERIA OF
 THE CONTROLLED PRODUCTS REGULATIONS (CPR) AND THE MSDS CONTAINS
 ALL OF THE INFORMATION REQUIRED BY THE CPR.

=====

16. OTHER INFORMATION

NFPA RATINGS:

HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0 OTHER: OXIDIZER

For Additional Information:

Contact: MSDS Coordinator - Univar USA

During business hours, Pacific Time - (425) 889-3400

NOTICE

Univar USA expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Univar USA Sales Office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Univar USA makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Univar USA's control. Therefore, users are responsible to verify this data under their own operating

conditions to determine whether the product is suitable for their particular purposes, and they assume all risks of their use, handling, and disposal of the product or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein and does not relate to its use in combination with any other material or in any other process.

END OF MSDS