MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Potassium chloride

INGREDIENTS: Potassium chloride

CHEMICAL FORMULA: KCl

SECTION 1 – PHYSICAL/CHEMICAL CHARACTERISTICS

PHYSICAL STATE AND APPEARANCE: Solid.
ODOR: Odorless.
TASTE: Saline. (Strong.)
MOLECULAR WEIGHT: 74.55 g/mole
COLOR: White.
pH (1% soln/water): Not available.
BOILING POINT: 1420°C (2588°F)
MELTING POINT: 770°C (1418°F)
CRITICAL TEMPERATURE: Not available.
SPECIFIC GRAVITY: 1.987 (Water = 1)
VAPOR PRESSURE: Not applicable.
VAPOR DENSITY: Not available.
VOLATILITY: Not available.
ODOR THRESHOLD: Not available.
WATER/OIL DIST. COEFF.: Not available.
IONICITY (in Water): Not available.
DISPERSION PROPERTIES: See solubility in water.
SOLUBILITY: Soluble in cold water, hot water. Very slightly soluble in methanol, n-octanol.

SECTION 2 – FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY OF THE PRODUCT: Non-flammable.
AUTO-IGNITION TEMPERATURE: Not applicable.
FLASH POINTS: Not applicable.
FLAMMABLE LIMITS: Not applicable.
PRODUCTS OF COMBUSTION: Not available.
FIRE HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES: Not applicable.
EXPLOSION HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES:
Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive in presence of oxidizing materials.

FIRE FIGHTING MEDIA AND INSTRUCTIONS: Not applicable.
SPECIAL REMARKS ON FIRE HAZARDS: Not available.
SPECIAL REMARKS ON EXPLOSION HAZARDS: May result in explosion with potassium permanganate and sulfuric acid.

SECTION 3 – REACTIVITY DATA

STABILITY: The product is stable.
INSTABILITY TEMPERATURE: Not available.
CONDITIONS OF INSTABILITY: Incompatible materials
INCOMPATIBILITY WITH VARIOUS SUBSTANCES: Reactive with oxidizing agents, acids.

SECTION 4 – HEALTH HAZARD DATA

POTENTIAL ACUTE HEALTH EFFECTS: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

POTENTIAL CHRONIC HEALTH EFFECTS:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to blood, cardiovascular system. Repeated or prolonged exposure to the substance can produce target organs damage.

SECTION 5 – FIRST AID PROCEDURES

EYE CONTACT: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15
minutes. Cold water may be used. Get medical attention.
SKIN CONTACT: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.
SERIOUS SKIN CONTACT: Not available.
INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
SERIOUS INHALATION: Not available.
INGESTION: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious
person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
SERIOUS INGESTION: Not available.

SECTION 6 – SPECIAL HANDLING INFORMATION

PRECAUTIONS: Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, moisture.
STORAGE: Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic

SECTION 7 – TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY: Inhalation. Ingestion.
TOXICITY TO ANIMALS: Acute oral toxicity (LD50): 1500 mg/kg [Mouse].
CHRONIC EFFECTS ON HUMANS: May cause damage to the following organs: blood, cardiovascular system.
OTHER TOXIC EFFECTS ON HUMANS: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.
SPECIAL REMARKS ON TOXICITY TO ANIMALS: Not available.
SPECIAL REMARKS ON CHRONIC EFFECTS ON HUMANS: May affect genetic material. Passes through the placental barrier in animal.
SPECIAL REMARKS ON OTHER TOXIC EFFECTS ON HUMANS: Actute Potential Health Effects: Skin: May cause skin irritation Eye: Dust may cause eye irritation. Inhalation: Dust may cause respiratory tract irritation. Low hazard for usual industrial handling Ingestion: May affect behavior (coma, change in motor activity, listlessness, vertigo, mental confusion, paresthesias, general weakness, flaccid paralysis), metabolism, blood (change in clotting factor, electrolytic imbalance), cardiovascular (hypotension, circulatory disturbances, cardiac arrhythmias, heart block), and respiratory, gastrointestinal (irritation of GI tract, nausea, vomiting, diarrhea, abdominal discomfort, purging), and urinary(impairment of renal function) systems. Acute potassium intoxication by mouth is rare because large single doses usually induce vomiting, and because in the absence of pre-existing kidney damage potassium is rapidly excreted. Maximal nontoxic oral dose of KCl in man varies from 0.2g to 1 g of potassium/kg/day depending upon efficiency of individual excretory mechanism; lower doses sometimes cause impairment of renal function as shown by reduced inulin, and urea clearance.
CHRONIC POTENTIAL HEALTH EFFECTS: May affect blood and cardiovascular system.