Material Safety Data Sheet

Nessler's reagent K2 (Hg I4) Potassium Mercuric Iodide (RXSOL-60-6052-002)

1. Product and Company Identifaction

Product Name	Nessler's reagent K_2 (Hg I_4)
Part Number	RXSOL-60-6052-002

Company Details:
RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

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2. Composition / informationon ingredients

Name of Substance	Cas Number	EC Num
Caustic Potash	1310-58-3	215-181
Nessler's Reagent	7783-33-7	231-990

3. Hazards Identification

Signal Word	Danger
Hazard Statements	H290 May be corrosive to metals. H301 + H331 Toxic if swallowed or if inhaled. H310 Fatal in contact with skin. H314 Causes severe skin burns and eye damage. H373 May cause damage to organs (Kidney, Central nervous system) through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements - prevention	P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P314 Get medical advice/ attention if you feel unwell.
Precautionary statements - response	Get medical attention/advice if you feel unwell
Other hazards	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

4. First Aid Measures

Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
Eye Contact	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
Inhalation:	After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.
Ingestion	If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.
Most important symptoms/effects	symptoms and effects are described in the labelling
Notes to Physician	Treat symptomatically

5. Fire-fighting Measures

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Specific Hazards Arising from the Chemical	Hydrogen iodide Potassium oxides Mercury/mercury oxides. Not combustible. Ambient fire may liberate hazardous vapours.
Protective Equipment and Precautions for Firefighters	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Further Information	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Environmental precautions	Do not let product enter drains.
Methods and materials for containment and cleaning up	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Handling	Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.
Storage	No metal containers. Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Light sensitive.
Storage class	Storage class (TRGS 510): 6.1B: Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials
Hygiene measures	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

8. Exposure controls and personal protection

Control Parameters Does not contain substances above concentration limits fixing an occupational exposure limit.

Engineering Control	Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.
Personal Protection	**Eye/face protection** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles **Skin protection** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. **Body Protection** protective clothing **Respiratory protection** Required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type ABEK. The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.
Exposure Limits	No data available



Gloves



Suit

9. Physical and chemical properties

Form	Liquid
Colour	No data available
Odour	No data available
Odor Threshold	No Information Available
pH	Not Applicable
Melting Point	No data available
Boiling Point	No data available
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	Not Applicable
Explosive limits	No data available
Vapour pressure	No information available
Vapour Density	No data available
Secific Gravity	1,150 g/cm3 at 20 °C
Decomposition Temperature	No information available
Partition coefficient	No data available
Autoignition Temperature	No data available
Solubility in Water at 20 °C	Soluble
Viscosity	No information available

10. Stability and reactivity

Recativity	No data available

Stability	Product is stable.
Possibility of hazardous reactions	Violent reactions possible with:The generally known reaction partners of water.
Conditions to avoid	No information available
Incompatible materials	Strong oxidizing agentsMetals
Hazardous Decomposition Products	In the event of fire: see section 5
Hazardous Polymerization	Hazardous polymerization does not occur. Hazardous Reactions None under normal processing

11. Toxicological information

Acute toxicity	Oral: No data available Acute toxicity estimate Oral - 62,32 mg/kg (Calculation method) Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Acute toxicity estimate Inhalation - 4 h - 0,6375 mg/l - dust/mist(Calculation method) Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract Acute toxicity estimate Dermal - 63,75 mg/kg (Calculation method)
Skin corrosion/irritation	Mixture causes severe burns.
Serious eye damage/eye irritation	Mixture causes serious eye damage. Risk of blindness!
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	Mixture may cause damage to organs through prolonged or repeated exposure. - Kidney, Central nervous system
Aspiration hazard	No data available

12. Ecological information

Toxicity to Fish	LC50 - Gambusia affinis (Mosquito fish) - 80 mg/l - 96 h Remarks: (IUCLID)
COD and BOD 5	Not Available
Products of Biodegradation:	No information available.
Mobility in soil	No information available.
Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Other adverse effects	Additional ecological information Discharge into the environment must be avoided.

13. Disposal considerations

Waste treatment Method	Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself

14. Transport information

	ADR/RID	IMDG
UN Number	ADR/RID: 2922	IMDG: 2922
UN proper shipping name	CORROSIVE LIQUID, TOXIC N.O.S. (Potassium hydroxide Nessler's reagent)	CORROSIVE
Transport hazard class(es)	8 (6.1)	8 (6.1)
Packaging group	II	II
Environmental hazards	Yes	Yes
Special precautions for user	No data available	

15. Regulatory information

Safety, health and environmental regulations	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
Other Regulation	Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance) - Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
Authorisations and/or restrictions on use	REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Nessler's reagent
Chemical Safety Assessment	Chemical safety assessments for substances in this mixture were not carried out.

16. Other information

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if **Rx Marine International** has been advised of the possibility of such damages.