

B·R·A·H·M·S Aktiengesellschaft	SAFETY DATA SHEET in accordance with 91/155/EEC B·R·A·H·M·S TRAK human RIA Tracer	MSDS No.: 10130_V03en Page 1 (3) Valid as of:: 03.05.04 Supersedes version of: .VE02 Update number: D 11434
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1. Identification of the substance/preparation and of the company/undertaking

- Trade name of the product:** B·R·A·H·M·S TRAK human RIA Tracer
Product code: 10130
Ingredient of the *in-vitro* test: B·R·A·H·M·S TRAK human RIA (Product code: 101.1, 101.5)
- Manufacturer/supplier identification** B·R·A·H·M·S Aktiengesellschaft
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2. Composition/information on ingredients

- Chemical characterization (preparation):** Protein-containing aqueous solution
- Hazardous ingredients:** Contains the radioactive nuclide ¹²⁵Iodine in a liquid form.
Radioactive concentration at the date of manufacture: 10.0 kBq/mL

3. Hazards identification

- Hazards identification:** Radioactive
- Identification of special hazards to man and the environment:** Unsealed radioactive substance, emits ionizing radiation.

4. First-aid measures

- Inhalation:** After inhalation of aerosols, blow nose thoroughly, call in a radiotherapist.
- Skin contact:** Immediately flush with plenty of water, conduct measurements to confirm that decontamination has been successful.
- Eye contact:** Immediately flush with plenty of water (with palpebral fissure open, for at least 10 minutes). Call in a radiotherapist immediately..
- Ingestion:** Rinse mouth out and drink plenty of water. Induce vomiting. Call in a radiotherapist.
- Note to physician:** Check for incorporation by measuring the radioactivity accumulated in the thyroid.

5. Fire-fighting measures

- Suitable extinguishing media:** Non-combustible product. Suit fire fighting to surroundings. Prevent radioactive contamination from spreading with extinguishing waters.
- Protection of firefighters:** Wear self-contained breathing apparatus.

6. Accidental release measures

- Personal precautions:** Wear appropriate protective clothing and protective gloves.
- Environmental precautions:** Prevent from entering surface water or sewers
- Methods of cleaning up:** Pick up cautiously, prevent further spreading.
Dispose of as radioactive waste.

7. Handling and storage

- **Handling:** Observe the provisions of the handling authorization, of the operational radiation protection directive and the DO's and DON'T's of the operating procedure.

Precautions: Use an absorbent padding, provide good ventilation of the room.
Advice for safe handling: Open and handle containers with care.

- **Storage**
Conditions for safe storage / specific design for storage rooms and containers: Keep in original containers tightly closed and keep containers in a cool area within the radiation safety area.

Advice for consolidated storage: Store radioactive substances in compliance with the National Radiation Protection Regulations and with the applicable handling authorizations. Individual cases shall be decided by the radiation safety officer according to the applicable handling authorization.

8. Exposure controls / personal protection

- **Engineering controls:** The areas in which radioactive substances are handled shall comply with the requirements of Radiation Protection Regulations according to national laws and standards.

- **Ingredients subject to exposure guidelines:** ¹²⁵Iodine

- **Personal protective equipment**
Respirator protection: No respiratory protection should be needed
Hand protection: Protective gloves
Eye protection: Safety glasses
Skin protection: Protective apron, protective overshoes or laboratory boots
General protective and sanitary measures: Do not eat, drink, smoke or take snuff while at work. Change contaminated clothing immediately. Check workplace regularly for freedom from contamination.

9. Physical and chemical properties

- **Appearance**
Physical state: liquid **Colour:** red **Odour:** odourless

- **Safety parameters**
Half-life of ¹²⁵Iodine: 60 days
pH: 6 - 8
Boiling point / boiling range: Not determined
Melting point / melting range: Not determined
Flash point: Not applicable
Autoflammability: Not applicable
Flammability: Not applicable
Explosive properties: None
Vapour pressure: Not determined
Relative density: Not determined
Solubility in / miscibility with water: Completely miscible
Fat solubility: Insoluble

10. Stability and reactivity

- **Conditions to avoid:** Do not heat
- **Materials to avoid:** Strong oxidants
- **Hazardous decomposition products:** The action of strong oxidants may result in the release of volatile radioactive ¹²⁵Iodine compounds

11. Toxicological information

- **Carcinogenic, mutagenic and developmental / reproductive effects:**
 Ionizing radiation, depending on the doses absorbed, may have carcinogenic or mutagenic effects.
- **Human experience:**
 There is no observation of any actual illness caused by doses as may occur in processing the product.

12. Ecological information

- **General information:**
- **Mobility and (bio)accumulation potential:** No information is available.
- **Ecotoxicity:** No information is available.

13. Disposal consideration:

- **Product:** The product must be disposed of as radioactive waste according to local regulations.
- **Contaminated packaging:** Dispose of as radioactive waste according to local regulations.

14. Transport information:

GGVE/GGVS/ADR: 7/1 IATA/ICAO: 7 UN No.: 2910

15. Regulatory information:

- **Classification according to EC directives:** The product is classified according to EC directives
Dangerous substance for labelling purposes: ¹²⁵Iodine
Hazard symbol and indication of danger for the product: Radioactive
- **Other regulatory information:** National Radiation Protection Regulations

16. Other information

- **Additional information**
Recommended range of applications: Follow working instruction
Working qualification: For commercial users and public research investigation or educational establishments only.
- *The information provided in this Material Safety Data Sheet shall only apply to the material described herein. It shall not apply to the processing of this material and/or its use together with other materials. It does not represent a guarantee of the properties of the material and is not the subject of any guarantee liabilities. With regard to contractual arrangements, only the specifications referred to therein shall be applicable. B·R·A·H·M·S Aktiengesellschaft shall not be responsible for any consequences of the use of this information.*