

SAFETY HANDLING SHEET

INSTRUCTIONS FOR THE HANDLING OF KRS5 (Thallium Bromo-Iodide) OPTICAL ELEMENTS

1. INTRODUCTION

KRS5 (Thallium Bromide –Iodide) is a toxic material because of the presence of thallium. In the mixed crystal system that is KRS5, the solubility in water is particularly low and this reduces the toxic hazard considerably. Some care in handling is required when it is presented as an optical element. Any optical component is delicate and the surfaces should not be handled without the protection of gloves simply to avoid contamination and protect the optic.

This sheet covers accidental handling, accidental breakage and disposal.

2. INSTRUCTIONS FOR NORMAL HANDLING

During normal handling or cleaning there is very little hazard to the operator.

The only precautions to be observed are those which should be used for the handling and cleaning of any delicate optical component, i.e. the use of tweezers and/or wearing of vinyl gloves such as Kimberley-Clark "Kinguard".

3. INSTRUCTIONS IN THE EVENT OF ACCIDENTAL HANDLING

Handle optics by the edges using plastic tweezers and/or vinyl gloves. Handling a KRS5 optical element accidentally without gloves should present very little hazard to personnel, however the following should be noted; touching the polished surfaces will contaminate them and the optic should be isolated for cleaning. Touching the edges will contaminate the skin. Wash hands as soon as possible using soap and water and a nailbrush.

4. INSTRUCTIONS FOR HANDLING BROKEN OPTICAL ELEMENTS

Dealing with broken or smashed optical elements presents minor hazard due to dust plus the additional danger of skin cuts and punctures produced by the broken material. Any wounds or skin lesions must be cleaned and dressed before any individual continues in the clear up operation.

If a component is accidentally smashed, cleaning up should be performed by an operator wearing a dust mask and gloves. Smaller fragments should be gently swept up avoiding the production of airborne dust. Place the broken fragments into a plastic bag and label it. If the optic was manufactured by Crystran Ltd it may be returned for disposal.

5. GENERAL INFORMATION

- i) KRS5 is harmful if inhaled or ingested, therefore all eating, drinking and smoking should be prohibited in relevant working areas. After handling, hands should be washed immediately.
- ii) KRS5 should not be disposed of in normal waste. Please return Crystran manufactured parts to Crystran Ltd for properly regulated disposal.
- iii) Operators who work with KRS5 regularly should be considered for monitoring of thallium level in the urine periodically.
- iv) This handling sheet is additional to, and does not supplant our Material Safety Data Sheet on KRS5.

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The above information is believed to be correct but does not purport to be all inclusive and must be used only as a guide.

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