

Scientific Services
for Transport & Industry

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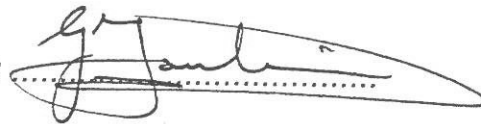
**ASSESSMENT OF THE 'AKS221' GRAFFITI CONTROL
PRODUCT SUPPLIED BY TRION TENSID AB.**

Prepared for: *Mr T Bengtsson*
Managing Director,
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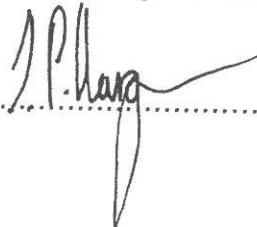
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ASSESSMENT OF THE 'AKS221' GRAFFITI CONTROL PRODUCT SUPPLIED BY TRION TENSID AB.

1. Introduction

4-RAIL Services Limited was requested by Mr T Bengtsson – Managing Director, Trion Tensid AB, Sweden to carry out an independent assessment of the AKS221 graffiti control product currently being marketed by Trion Tensid AB. The assessment was carried out to reflect the technical requirements of end-users within the rail industry who are attempting to control graffiti on rolling stock, although the basic principles apply to any similar vehicles e.g. buses and trams where there is a graffiti problem.

The assessment addresses the following key points:

1. Definition of the Criteria of Acceptability for graffiti removal agents.
2. Health hazards presented by the products in comparison to other generic product types currently available in the chemicals market.
3. Graffiti removal tests comparing the performance of AKS221 applied to six substrates against two reference graffiti removers.
4. Appraisal of the performance of the AKS221 product offered by Trion Tensid AB against the Criteria of Acceptability.

1.1 *Background Information*

Graffiti is a problem that has strongly established itself throughout the world, particularly in inner city areas where it is extensively inflicted upon public transport vehicles and buildings. Global networks of information have emerged on the Internet and via underground magazines in which graffiti vandals exchange advice on which dyes and paints leave the most indelible marks and display photographs of heavy graffiti attacks that have recently been carried out. Unfortunately those bodies attempting to control graffiti have never similarly networked themselves to exchange technical information on methods of protection and removal.

Listed below are the types of graffiti that are commonly placed in the two main areas that most frequently suffer attack:

1.2 *Exteriors of rolling stock.*

Graffiti on the exterior rolling stock is usually in the form of a simple 'tag' or, where the graffiti vandal has time, a large multi-coloured 'mural'. Materials used to make the marks are as listed below:

- Spray Paints - those with high solids content are most widely used with black, silver, purple and green predominating. The British Transport Police have uncovered a variety of different paints from crime scenes but those from the manufacturer Buntlack are known to be particularly hard to remove.
- Permanent Markers – A wide variety of colours are used from a large number of different manufacturers.