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Test Report

Test of Greases to Clause 4.2 of Australian Standard AS 2380.2 - 1991, Flameproof Enclosure d

(Including Amendment No. 1, July 1992)

Report No:	**NE01/0047**
Date of Issue:	25 October 2001
Job No:	01/0205
Applicant/Customer Name:	Lanotec Australia Pty Ltd 2/21 Alton Street COOPERS PLAINS QLD 4108
Material Details:	Lanolin Products • Type 'A' grease • HD-21 spray grease
Type of Protection:	Ex d
Apparatus Group:	I/IIC
Hazardous Area:	Class I Zone 1

CHECKED: VIC APPROVED SIGNATORY:

flamepath testing

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1.0 DESCRIPTION OF APPARATUS

This report covers testing of Lanolin products designated types "Type A grease" and "Heavy Duty Liquid Lanolin (HD-21)", intended for use as a protective coating on flanges of flameproof enclosures. The purpose of the test was to verify that the application of the greases did not adversely affect the integrity of a typical flameproof enclosure. The grease types covered in this report are as follows:

PRODUCT NAME	PRODUCT CODE	INGREDIENTS	
		CHEMICAL ENTITY	PROPORTION
Heavy Duty Liquid Lanolin	HD-21	Liquid Hydrocarbons	65%
		Lanolin Anhydrous	35%
Lanotec Type "A" Grease	Type "A" Grease	Lanolin Anhydrous	100%

2.0 DRAWINGS

The documents listed in Schedule 1 are associated with this test report.

3.0 TEST SPECIFICATION

Test arrangement for gas group I application

The lanolin products were applied separately to flange joints of a fabricated steel enclosure with a bolted access cover. The test enclosure has the external dimensions of 610 x 360 x 240mm and free internal volume of 39 litres. Sufficient amount of the grease was applied to totally cover the surface of the flange joints.

Test arrangement for Group IIC application

The lanolin products were also applied separately to a group II enclosure made of aluminium alloy with a hinged bolted access cover. The test enclosure has the external dimensions of 260 x 260 x 110mm and free internal volume of 9 litres. Sufficient amount of the grease was applied to totally cover the surface of flange joints.

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4.0 TESTING

Testing to clause 4.2.3 (determination of explosion pressure) of AS 2380.2-1991 was conducted with and without the greases (Type A grease and HD-21 grease) applied to the main flange joint of the test samples (refer section 3.0) for group I and group IIC gases.

Testing to clause 4.2.5 (tests for non-transmission of an internal ignition) of AS 2380.2-1991 was conducted with the greases (Type A grease and HD-21 grease) applied to the main flange joint of the test samples (refer section 3.0) for group I and group IIC gases.

5.0 SUMMARY OF TEST RESULTS

The following results were obtained:

No significant change to the reference pressure was observed during testing to clause 4.2.3 of AS 2380.2 for either gas group; and

No ignition of the external explosive mixture occurred during testing to clause 4.2.5 of AS 2380.2.

SCHEDULE 1

LIST OF DOCUMENTS

NUMBER	TITLE	REVISION NUMBER	DRAWING REVISION DATE
-	Lanotec Information Booklet	-	-
-	Information & Material Safety Data Sheets for The Lanotec Range of Products	-	Aug 1999

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