

**STATUTORY DECLARATION**

---

I, Mariana Kaker, of 5 Waite Place, City Beach, Western Australia 6015, industrial chemist, sincerely declare as follows:

1. I am an industrial chemist and the General Manager Operations and Development of Nitro Sibir Australia (**NSA**) and a Sole Director of Explosives Manufacturing Services Pty Ltd (**EMS**). I provide this declaration in support of NSA's application for an exemption under section 8(7)(a) of the *Customs Tariff (Anti-Dumping) Act 1975* (Cth) in respect of High Density Ammonium Nitrate (**HDAN**) subject to dumping duties pursuant to Anti-Dumping Notice No. 2016/34.
2. The matters to which I depose are true to the best of my information, knowledge and belief.

**Background**

3. I have 29 years' experience in explosives development and manufacture. I have experience in the development of bulk and packaged emulsion, underground up-hole emulsion, specialised products for hot and reactive ground, and water gel technology for specialised products including presplit.
4. I hold a Bachelor of Science (Industrial Chemistry) (1988) and Master of Science (1996) from Curtin University.
5. In June 1989, I joined explosives manufacturer Dyno Wesfarmers Pty Ltd (now Dyno Nobel) at its Kalgoorlie operations as a Plant and R&D Chemist. In 1999, I moved into the role of Senior R&D Chemist at Dyno Nobel's Mount Thorley research facility. From about 2003 to 2009, I worked in Kalgoorlie as a contractor to Dyno Nobel at its ammonium nitrate and fuel oil (**ANFO**) and Z-bar manufacturing facility.
6. In 2005, I founded EMS, of which I remain a joint owner. EMS manufactures packaged ANFO and specialised tunnelling explosives. In 2009, EMS built a second plant to produce the 'Python' centrally corded presplit product. In 2011, EMS pioneered a new water gel presplit product.
7. In about 2005, I became a partner in Chemrok Pty Ltd, which manufactured packaged products for the mining industry at its site in the Kalgoorlie Explosives Reserve.
8. In 2013, Tim Fry and I founded NSA. NSA supplies the Australian mining industry with a full range of explosives and blasting services.

**LDAN**

9. Based on my knowledge and experience, Low Density Ammonium Nitrate (**LDAN**) is not a "*like or directly competitive*" good to HDAN. While HDAN is used to produce ammonium nitrate emulsion explosives (**ANE**), LDAN cannot be used for this purpose.
10. [REDACTED] I was personally involved in three scientific projects to investigate the use of LDAN for the purpose of producing ammonium nitrate bulk emulsion products. [REDACTED]  
[REDACTED] I make the following statements based on my own independent recollection. The nature, scope and outcome of the projects was as follows:

- (a) in 1990, a project was undertaken to determine whether a partial substitution of LDAN for HDAN could be used to produce emulsion explosives. The project was unsuccessful;
- (b) in November 1992, a project was initiated by the Research & Development Manager to investigate whether flocculation of LDAN-based solution could be used to produce ANE of acceptable quality. This was initially a laboratory level project. The project failed because it was determined that ANE produced from LDAN was not sufficiently stable. Moreover, other issues were identified as barriers that prevented the scaling up of the project to a commercial level, including:
  - (i) the time required to dissolve and flocculate the LDAN;
  - (ii) difficulties disposing of the flocculant waste; and
  - (iii) the cost of disposing of the flocculant waste.
- (c) in about 2000, a scaled-up project was undertaken at the [REDACTED]. The project focussed on whether flocculation of LDAN-based solution required to produce an ANE of acceptable quality for mining use could be undertaken on a commercially-viable scale. The problems encountered included:
  - (i) wastage of LDAN (about 15%, which is commercially unacceptable); and
  - (ii) the difficulties associated with, and cost of, disposing of the flocculated product.

These factors, it was determined, made the endeavour uneconomical and it was abandoned.

11. I am not aware of any research project undertaken in Australia or elsewhere in the world which has determined that it is possible, via flocculation, to use LDAN as a substitute for HDAN in the industrial production of ANE. The process time to flocculate off the unwanted agents from LDAN, the reduced recovery rate and the cost to dispose of the waste make LDAN entirely unsuitable for this purpose.
12. To my knowledge, no Australian emulsion explosives manufacturer uses LDAN to produce ANE. This indicates that LDAN is not a "*like or directly competitive*" good to HDAN.

#### **ANSOL**

13. ANSOL is not directly substitutable for HDAN for the purpose of producing ANE. In order to use ANSOL to produce ANE, it must be cooled from its storage temperature of 120°C down to 75 - 80°C. The only way to do this is to add HDAN to the solution, using about 10 - 15% HDAN. In other words, ANSOL is not "*like or directly competitive*" with HDAN, as it cannot of itself replace HDAN as the raw material for the production of ANE. All Australian ANE manufacturers must use some quantity of HDAN.
14. I have investigated the issue of installing the infrastructure at NSA's BlackBear plant to enable it to use ANSOL to produce ANE. This would involve commissioning bespoke heated tanks in a retained structure, insulated pipes and pumps, amongst other things. The following factors prevent NSA from doing so:
  - (a) NSA is unlikely to be able to obtain the necessary regulatory approvals from the Department of Mines, Industry Regulation and Safety (**DMIRS**). On 15 August 2018, NSA made inquiries with the Principal Explosives Officer at DMIRS, Mr Henry Zuidersma, about installing a 200 tonne ANSOL handling facility at the Kalgoorlie Explosives Reserve (at a site close to the BlackBear plant, such proximity being necessary to reduce cooling of ANSOL during transfer and to minimise pump distances). NSA was informed orally that the proposed installation would be of

Confidential Third Party Identification and Information

insufficient distance from Orica's packaged explosives plant, and therefore approval would not be granted;

- (b) even if approval were granted, the land required to install such infrastructure is beyond NSA's leased area. NSA would need to make an application to lease additional land and, provided the application was successful (of which there is no certainty), bear additional costs;
- (c) the cost of commissioning the required infrastructure would be approximately \$1.2 million (excluding GST). This estimate is based on the quotation provided by [REDACTED] (an independent engineering contractor based in Kalgoorlie) dated 14 August 2018 (attached as **Confidential Annexure 1**), in relation to installation of ANSOL storage tanks, piping and transfer equipment (and associated engineering drawings). In addition to that quotation, I estimate that at least a further \$200,000 (excluding GST) would be required to clear the site for and lay access roads, and to lay concrete at the ANSOL transfer points; and
- (d) even if the above conditions could be met, it would take about two years from concept to completion to install the infrastructure.

Confidential Third Party Identification and Information

- 15. Based on the above, I do not believe that it is possible (from either a regulatory or commercial perspective) for NSA to convert the BlackBear plant to enable it to use ANSOL for the production of ANE.

### Conclusion

- 16. LDAN and ANSOL are not "*like goods*" to HDAN, due to their physical, commercial, functional and production differences. LDAN has no commercial or functional likeness to HDAN whatsoever, as it cannot be used for the production of ANE. ANSOL has no commercial or functional likeness to HDAN, as it cannot be used for the production of ANE unless HDAN is added to the emulsion, and unless a different set of regulatory approvals are granted and infrastructure is installed. For the reasons set out above, it is not possible for NSA to install such infrastructure.
- 17. LDAN and ANSOL are not "*directly competitive*" with HDAN, as they have no commercial relationship and are not relevantly interchangeable.

This declaration is true and I know that it is an offence to make a declaration knowing that it is false in a material particular.

This declaration is made under the *Oaths, Affidavits and Statutory Declarations Act 2005*.

At Whitfords (place)

On 21.8.2018 (date)

By [Signature] (signature)

In the presence of [Signature] (signature of authorised witness)

Alyssa Chua (name of authorised witness)

Pharmacist (qualification as such as witness)

**Alyssa Chua**

B Pharm. MPS.

WOODVALE BOULEVARD  
CHEMIST AND NEWS  
Cnr TRAPPERS DR & WHITFORDS AVE  
WOODVALE WA 6026  
TELEPHONE: 9309 5113  
OPEN 7 DAYS - 8.00am to 8.00pm