



SECTION A:

NON-TECHNICAL SUMMARY

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Attachment N° A.1

TopChem Pharmaceuticals Limited is located in the Ballymote Business Park, Carrownanty, Ballymote, Co Sligo. The Company is leasing 2 standard industrial units from a block of 4 with other light Industrial activities performed nearby. The buildings occupy a floor space of approx 5,000 square feet and are situated in close proximity to the Sligo – Dublin Train station. The Company will be involved in the manufacture of low volume active pharmaceutical ingredients, starting with Malathion, Monday to Friday 8.00am – 18.30pm with overtime as necessary but not beyond 23.00pm. Our customer will formulate Malathion into their application for the treatment of head lice infestation.

All operations for the manufacture of Malathion will be performed on a laboratory scale within Fume-Hoods. Malathion is generated from starting materials of ammonium salt of Dimethylphosphorodithioic acid and diethyl maleate. The crude material is isolated and purified using a short path distillation unit and / or additional purification by crystallisation. Approximate batch size for this product will be 2Kg using max 20l reactors.

The list of raw materials used in the manufacture of Malathion is as follows;

- *Diethyl Maleate,*
- *O,O-Dimethylphosphorodithioic acid,*
- *Sodium Hydrogen Carbonate (NaHCO₃),*
- *Ethanol,*
- *Hydroquinone,*
- *Triethylamine,*
- *Dichloromethane,*
- *Toluene,*
- *Hydrochloric acid (HCl) gas*

No auxiliary materials will be used while Electricity is the source of energy on site. In view of the fact that TopChem Pharmaceuticals Limited is a start-up facility, we can only estimate at this stage that our energy usage will be €10,000 per annum, however, once we are up and running more detailed figures will be provided in due course.

The potential sources of emissions from the site are minor emissions from the fume-hoods which have emission points located on the roof of the building plus surface water from the site. All manufacturing and storage is bunded and / or enclosed and there are no surface water emissions from the site. The fume-hoods are installed in such a way that the exhaust fans are only running when the fume-hoods are required.

TopChem Pharmaceuticals Limited will not have any emissions to the sewer apart from normal domestic and soil water. All solids, aqueous and organic wastes will be drummed for off-site disposal using an approved licensed contractor (to be advised).

As per section E of this Application, TopChem Pharmaceuticals Limited does not foresee any significant emissions from the site, hence we don't foresee any requirements to introduce technology or techniques to prevent, reduce or monitor emissions.

With respect to pollution from the site, all fume-hoods are bunded to contain accidental spillages or leakages. Additionally, all storage within the facility area will be bunded to contain spillages.

All wastes generated in the site, i.e. non chlorinated organic solvents, chlorinated organic solvents, waste material (includes paper, plastics, cardboard & packaging), aqueous acidic waste, aqueous basic waste, solid laboratory waste and solid chemical waste will be collected and disposed of through an approved licensed contractor (to be advised).

All personnel operating in each of the production, laboratory and stores areas will be trained on how to deal with spillages and what to do in the event of an emergency evacuation of the facility.

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