

Application to the relevant hazardous substances authority (planning authority)

The Planning (Hazardous Substances) Act 1990 - Section 7(1)

England - The Planning (Hazardous Substances) Regulations 2015 (Regulation 5)

Wales - The Planning (Hazardous Substances) (Wales) Regulations 2015 (Regulation 5)

Application for Hazardous Substances Consent

1 Applicant	Address	Solvay Solutions UK Ltd
		PO Box 80, Trinity Street, Oldbury,
		West Midlands
	Post code	B69 4LN
	Telephone number	0121 541 3343
Person in control of the land to which the application relates, if different to above	Address	
	Post code	
	Telephone number	
2 Address or other location details of application site		Solvay Solutions UK Ltd
		PO Box 80, Trinity Street, Oldbury
		West Midlands
	Post code	B69 4LN
	OS grid ref	SO 993 885

3 Hazardous substance(s) covered by the application

- (a) List named substances falling within Part 2 of Schedule 1 to the Regulations first, then list any substances falling within the categories in Part 1 of that Schedule; finally list substances falling within the description in Part 3.

- (b) Substances falling within Parts 1 or 3 of Schedule 1 to the Regulations may be listed under the relevant category or description or named specifically. Where a substance falls within Part 1 and 2 list under Part 2 only; where a substance falls within more than one category in Part 1 list under the category which has the lowest controlled quantity. Where a substance falling within Part 1 or 2 also falls within Part 3 list under the Part which has the lowest controlled quantity. The “controlled quantity” means the quantity specified for that substance in column 2 of Parts 1, 2 or 3 of Schedule 1 to the Regulations.

Note: The Planning (Hazardous Substances) (Amendment) Regulations 2015 are relevant to Q* (addition rule) for LPG, and relevant to notes about ammonium nitrate.

Table A

<i>Name, or relevant category or description of substance</i>	<i>Part number in Schedule 1 to the Regulations, and entry number if Part 2, category if Part 1, identity if Part 3</i>	<i>Do you have a current PHS consent* in respect of this substance? (Yes/No)</i>	<i>If “yes”, state quantity for which consent granted</i>	<i>Maximum quantity proposed to be present in tonnes</i>
Phosphine	Part 2, number 29	Yes	1.59 te	1.2 te
Hexene	Part 1, P5A	No	-	27 te
35% Hydrogen peroxide	Part 1, P8	No	-	50 te
Cyanex 923 ¹	Part 1, E1	No	-	50 te

*a hazardous substances consent

1 Cyanex 923 is a mixture of hexyldioctylphosphine oxide, dihexyloctylphosphine oxide and trioctylphosphine oxide

4 Manner in which substance(s) are to be kept and used

For each substance, category or description of substance, covered by the application, provide the following information, referring to the substance location plan where appropriate.

“vessel” means any container designed or adapted to contain hazardous substances which is affixed to the land, and includes a container which forms part of plant or machinery which is affixed to the land but does not include a pipeline.

“Buried” or “Mounded” vessel includes a vessel which is only partially buried or partially mounded.

“moveable container” means any container designed or adapted to contain hazardous substances other than a vessel.

- (a) Tick one box below to show whether the substance(s) will be present for storage only or will be stored and involved in a manufacturing, treatment or other industrial process:

- (c) For each substance, category, or description of substance, state the largest size (capacity in cubic metres) of any **moveable** container(s) to be used for that substance, category, or description of substances:

Table C (ii)

<i>Substance including Part no. in Sch. 1 to the Regs, and entry no. if Part 2, category if Part 1, identity if Part 3</i>	<i>Storage area on site*</i>	<i>Maximum capacity (cubic metres) of individual moveable containers</i>
Phosphine, Part 2, number 29	NA	NA
Hexene, Part 1, P5A	S1	36
35% Hydrogen peroxide, Part 1, P8	S2	1
Cyanex 923, Part 1, E1	S3	1

* identify by reference to substance location plan

- (d) Where a substance, category or description of substance is to be used in a **manufacturing, treatment or other industrial process(es)**, give a general description of the process(es), describe the major items of plant which will contain the substance(s); and state the maximum quantity (in tonnes) which is liable to be present in the major items of the plant, and the maximum temperature (°C) and pressure (bar absolute) at which the substance, category or description of substance is liable to be present:

Table D

<i>Substance including Part no. in Schedule 1 to the Regs, and entry no. if Part 2, category if Part 1, identity if Part 3</i>	<i>Description of process(es)</i>	<i>Major items of plant*</i>	<i>Max. quantity (tonnes)</i>	<i>Max. temp. (°C)</i>	<i>Max. pressure (bar absolute)</i>
Phosphine, Part 2, number 29	Reacted with alkenes and oxidised to give alkylphosphine oxides	1. 10.5m ³ Semiworks reactor	0.01	90	5
		2. 0.3m ³ Loop reactor	0.001	100	7
Hexene, Part 1, P5A	Reacted with phosphine and oxidised to give alkylphosphine oxides	1. 10.5m ³ Semiworks reactor	2.5	150	5
		2. 0.3m ³ Loop reactor	0.1	100	7
		3. 3.5m ³ Mixer tank	3.0	25	1.5
35% Hydrogen peroxide, Part 1, P8	Reacted with alkylphosphines to give alkylphosphine oxides	1. 10.5m ³ Semiworks reactor	0.1	150	5
		2. 0.3m ³ Loop reactor	0.005	100	7
Cyanex 923, Part 1, E1	Product formed from reaction of phosphine with alkenes and oxidation	1. 10.5m ³ Semiworks reactor	6.0	150	5
		2. 0.3m ³ Loop reactor	0.3	100	7

* identify by reference to substance location plan

5 Additional Information

- (a) If you have an existing PHS consent(s) as referred to in Table A, **attach a copy of each consent** to this application.
- (b) **List the maps or plans** or any explanatory scale drawings of plant/buildings submitted with this application (as a **minimum submit a site map and a substance location plan** – see **Notes** below).

Substance location plan 1; Substance location plan S2 and S3; and Site location

- (c) Provide a brief overview description of the **main activities** carried out or proposed to be carried out on the land to which the application relates.

Manufacture of bulk phosphorus related chemicals
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- (d) Provide details of how each relevant substance is proposed to be transported to and from the land to which the application relates, for example the size and frequency of vehicle deliveries, the size or maximum flow rate of pipeline imports/exports.

<i>Substance including Part number in Schedule 1 to the Regulations, and entry number if Part 2, category if Part 1, identity if Part 3</i>	<i>How, and other details such as frequency and quantity, transported to and from the land to which the application relates</i>	
	<i>Transported to site</i>	<i>Transported from site</i>
Phosphine, Part 2, number 29 ⁴	NA	NA
Hexene, Part 1, P5A	36m ³ tanker, frequency = 6pa	NA
35% Hydrogen peroxide, Part 1, P8	1m ³ IBC, frequency = 10 IBCs each delivery 25pa	NA
Cyanex 923, Part 1, E1	NA	1m ³ IBC, frequency = 50pa

4 Phosphine is generated and used on site

- (e) Provide details of the vicinity of the land to which the application relates, where such details are relevant to the risks or consequences of a major accident (relevant details include numbers of people in neighbouring developments that could be affected by a major accident).

See enclosed Sections 2.2 and 5.10.2 of our COMAH Report
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- (f) Provide a brief overview of the measures taken or proposed to be taken to limit the consequences of a major accident.

See enclosed Section 13.1 of our COMAH Report.
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- (g) Give any further information which you consider to be relevant to the determination of this application.

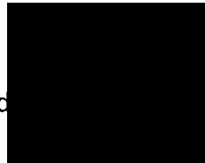
Note we already have HSC for phosphine. This was granted under deemed consent in 1992 and the application for this deemed consent is enclosed. This covered the storage of phosphine gas in a 1.2te gasholder and the use of phosphine (at pressures up to 1.5 bar g) to manufacture tetrakis(hydroxymethyl)phosphonium chloride (or sulphate) solutions. This application includes phosphine as we propose to increase the phosphine pressure up to 7 bar a in the Semiworks reactor and the loop reactor and in the transfer pipework from the Phosphine plant to the Semiworks plant. There will be no change to the pressure of the phosphine in the storage tank V1.

Note that if it is deemed that this application could result in a change to the consultation distance then we would be willing to impose further conditions to mitigate against this.

Please also find enclosed safety data sheets for the relevant substances.

I/We hereby apply for hazardous substances consent in accordance with the proposals described in the application

Signed



TOM DUTTON

on behalf of SOLWAY SOLUTIONS UK LTD

(insert name of person in control of the land if different to applicant)

Date

26 JULY 2018

To be accompanied by the notices and certificates required by regulations 6 and 7 of the Regulations.

Notes

“**Site map**” is a map, reproduced from, or based on, an Ordnance Survey map with a scale of not less than 1:10,000, which identifies the land to which the application relates and shows National Grid lines and reference numbers.

“**Substance location plan**” is a plan of the land to which the application relates, drawn to a scale of not less than 1:2,500, which identifies-

- (a) any area of land intended to be used for the storage of the substance;
- (b) where the substance is to be used in a manufacturing, treatment or other industrial process, the location of the major items of plant involved in that process in which the substance will be present; and
- (c) access points to and from the land.