



AN ROINN DEPARTMENT
OIDEACHAIS OF EDUCATION
AGUS SCILEANNA AND SKILLS

Planning and Building Unit
Tullamore, Co. Offaly.

Telephone: 057 9324300 or 01 889 6400

Fax: 057 9324411

Web: www.education.ie

Room: Science Laboratory

**Chemistry – CHE
Equipment List and Specification**

There are six lists for science equipment, i.e. LAB, RES, DAT, CHE, PHY and BIO.

The provision of science equipment for science laboratories is as follows:

- i) One Basic Science List – LAB – for each science laboratory.
- ii) One Science Resource List– RES – for each **two** science laboratories.
- iii) One Data List – DAT, Part 1 - for each **two** science laboratories.
- iv) One Biology List – BIO – for each Biology provision (in addition to i) and ii) above) plus Part 2 of DAT List.
- v) One Chemistry List – CHE –for each Chemistry provision (in addition to i) and ii) above) plus Part 3 of DAT List.
- vi) One Physics List – PHY – for each Physics provision (in addition to i) and ii) above) plus Part 4 of DAT List
- vii) **Max.** no. of Senior Lists: 3 for up to 4 labs; 4 for 5 labs; 5 for 6 labs.

Note: Where the symbol ♣ is placed after a substance, a supplier who supplies a greater quantity than requested may be held responsible for removal and disposal of the excess.

Standards, Specifications and Conditions

All equipment shall be durable and safe for school use.
Equipment wholly or partly funded from public funds is subject to inspection by officers from the Department of Education and Skills.

It is essential that tenders and tenderers for equipment for school use shall:

- **Comply fully with the specifications and be durable and safe for school use.**
- **Comply fully with the standards as detailed and shall comply fully with European Standards (EN), both established and developing.**
- **Comply with European electrical standards and CE marking as appropriate.**
- **Fully comply with requirements in the Request for Tenders (RFT) document.**
- **Be accompanied by documentation of sufficient detail for full evaluation.**
- **Include the completed and signed certificate of compliance.**

Award of a contract is conditional on the production of a current tax clearance certificate.

Failure to comply with the above may result in the tender being deemed null and void.

Section 1: Basic Science Equipment		
Code Quantity	Descriptions and Specifications	Cost €
CHE/100 2	Aluminium metal sheets, 600 x 300 mm, c. 0.8 mm thick, pack 10	
	Manufacturer: Catalogue No:	
CHE/101 1	Balance, electronic, digital display, top-loading, with serial interface: 0 – 300 g × 0.001 g (i.e. to 3 decimal places = 1 mg).	
	Two year warranty. Manufacturer: Catalogue No:	
CHE/102 2	Bulb-holders, medium, Edison screw, pack 10	
	Manufacturer: Catalogue No:	
CHE/103 10	Bulbs, medium, Edison screw, 1.5 V, 0.3 A, pack 10	
	Manufacturer: Catalogue No:	
CHE/104 12	Burette clamp, single, suit 25 cm ³ pipettes, to suit 10 mm retort stand rods	
	Manufacturer: Catalogue No:	
CHE/105 2	Burette storage racks, 10 slots	
	Manufacturer: Catalogue No:	
CHE/106 6	Bunsen burner, semi micro, nickel-plated burner tube with adjustable air regulator on enamelled pressed steel base, tapered rifled gas inlet (mean OD 10 mm), burner tube 60 x 10 mm (height x diameter), base 80 mm diameter, suitable for LPG or natural gas, as required by school.	
	Manufacturer: Catalogue No:	
CHE/107 6	Tripod stand, triangular top, low form, for use with semi micro Bunsen burners (above), length of side 125 mm, height 154 mm	
	Manufacturer: Catalogue No:	
CHE/108	Deleted.	
	Manufacturer: Catalogue No:	
CHE/109 12	Calorimeter, Joule, dc supply up to 4 V, 3 A. Complete with stirrer, terminals and heating coil, lagged and fitted with outer jacket, lid with hole for thermometer.	
	Manufacturer: Catalogue No:	
CHE/110 50	Carbon rods	
	Manufacturer: Catalogue No:	
CHE/111 2	Colorimeter, general purpose laboratory, wavelength selection (range 400-710 nm) using 8 built-in filters, (typical band widths 40 nm), d.c. (12 V) and a.c. 230 V, 50 Hz, digital, LCD display, complete with cuvettes.	
	Two year warranty. Manufacturer: Catalogue No:	
CHE/112 6	Comparator, Lovibond 2000 or equivalent, to determine chemical concentrations in water samples by visual colorimetry	
	Manufacturer: Catalogue No:	
CHE/113 6	Lighting unit, standardised, mains operated, 230 V, suitable for use with Lovibond Comparator, or equivalent, above.	
	Two year warranty. Manufacturer: Catalogue No:	

CHE/114 6	Cell, 40 mm, rectangular moulded cell, calibrated at 20 cm ³ for use with comparator, above	
	Manufacturer:	Catalogue No:
CHE/115 2	Cell, 13.5 mm, moulded glass, precision square, capacity 10 cm ³ for use with comparator above, pack of 5	
	Manufacturer:	Catalogue No:
CHE/116 6	Discs for comparator 2000 system above, or equivalent to determine Chlorine in water, 0.02 to 0.3 mg/litre	
	Manufacturer:	Catalogue No:
CHE/117	Deleted	
CHE/118 1	Chromatography paper, Whatman grade 1, or equivalent, 30 mm wide, reel 100 m	
	Manufacturer:	Catalogue No:
CHE/119 1	Chromatography paper, Grade 1, sheets, 250 x 250 mm, pack 100	
	Manufacturer:	Catalogue No:
CHE/120 3	Chromatography tank, thin-layer, to hold at least three plates, 10 cm x 20 cm with a heavy glass lid	
	Manufacturer:	Catalogue No:
CHE/121 3	Stainless steel insert for TLC plates, to suit chromatography tank above	
	Manufacturer:	Catalogue No:
CHE/122 3	Chromatography thin layer plates, flexible, 20 x 20 cm ² , pack 25, to suit above tank	
	Manufacturer:	Catalogue No:
CHE/123 1	Chart: Size approximately 100 x 75 mm ² coloured to illustrate the following: Chemistry: Organic chemistry chart - To give an overall view of organic chemistry and some of its many areas of achievement.	
	Manufacturer:	Catalogue No:
CHE/124 6	Carbon electrodes (pair), with stoppers and terminals.	
	Manufacturer:	Catalogue No:
CHE/125 6	Copper plate electrodes, supplied as pair, with stoppers and terminals	
	Manufacturer:	Catalogue No:
CHE/126 2	Desiccator, glass, lid with knob, 200 mm, complete with discs	
	Manufacturer:	Catalogue No:
CHE/127 5	Desiccator discs, for 200 mm desiccator	
	Manufacturer:	Catalogue No:
CHE/128 12	Diffraction gratings, 100 lines/cm	
	Manufacturer:	Catalogue No:
CHE/129 1	Discharge tube, mercury, Teltron or equivalent.	
	Manufacturer:	Catalogue No:

CHE/130 1	Universal stand, to suit above.		
	Manufacturer:	Catalogue No:	
CHE/131	DELETED		
CHE/132 10	Filter paper, grade 1, qualitative general purpose, 15 cm, pack 100		
	Manufacturer:	Catalogue No:	
CHE/133 2	Filter paper, grade 1, qualitative general purpose, 18 cm, pack 100		
	Manufacturer:	Catalogue No:	
CHE/134 2	Filter paper, grade 1, qualitative general purpose, 24 cm, pack 100		
	Manufacturer:	Catalogue No:	
CHE/135 6	Gas syringe kit; complete with 3-way stopcock(1), gas syringe, glass 100 cm ³ (2), silica tube with plugs(2), bent tube(1), 'T' tube(1), test tube(1), pinhole tube(1), rubber connectors(8) and gas syringe holders.		
	Manufacturer:	Catalogue No:	
CHE/136 6	Gas syringe, precision ground glass, gas tight and heat resisting, outlet tube external diameter 7 mm, capacity 100 cm ³ x 1 cm ³ .		
	Manufacturer:	Catalogue No:	
CHE/137 1	Rubber caps, self-sealing (vacuum), packet 12, for use with gas syringe above		
	Manufacturer:	Catalogue No:	
CHE/138 1	Hypodermic needles, 19G x 50 mm, pack 10, for gas syringe above.		
	Manufacturer:	Catalogue No:	
CHE/139 12	Hirsch funnels, porcelain with perforated support plates, top diameter 50 mm, plate diameter 18 mm.		
	Manufacturer:	Catalogue No:	
CHE/140 1	Molecular model set, atomic models (skeletal) containing 24 large spheres, 84 small spheres with flexible bonds.		
	Manufacturer:	Catalogue No:	
CHE/141 12	Molecular model set, elementary organic chemistry, Molymod or equivalent,.		
	Manufacturer:	Catalogue No:	
CHE/142 6	Molecular model set, organic (teachers) set, Molymod or equivalent		
	Manufacturer:	Catalogue No:	
CHE/143 3	Molecular model set, inorganic/organic set, Molymod or equivalent.		
	Manufacturer:	Catalogue No:	
CHE/144 2	Model orbital molecular lattice set, with seven (7) crystal systems, number of atoms 240, number of bonds 250, Molymod or equivalent.		
	Manufacturer:	Catalogue No:	
CHE/145 1	Model set, s, p and d orbitals, Darling model kit, or equivalent, approx. 103 pieces, flexible.		
	Manufacturer:	Catalogue No:	

CHE/146 1	Molecular model set, diamond, pre-assembled, Molymod or equivalent,. Manufacturer: _____ Catalogue No: _____	
CHE/147 1	Molecular model set, graphite, pre-assembled, Molymod or equivalent Manufacturer: _____ Catalogue No: _____	
CHE/148 1	Molecular model, sodium chloride lattice, Molymod or equivalent, Manufacturer: _____ Catalogue No: _____	
CHE/149 1	Molecular model, ice, Molymod or equivalent. Manufacturer: _____ Catalogue No: _____	
CHE/150 6	Melting point apparatus, digital selection and display of temperature, built in illumination, to take up to two samples for simultaneous viewing, complete with 100 melting point tubes, open one end. Manufacturer: _____ Catalogue No: _____	
CHE/151 2	Melting point tubes, open at both ends, pack 100, to suit above Manufacturer: _____ Catalogue No: _____	
CHE/152	deleted	
CHE/153 2	Paper rolls, spare, to suit above, 10 rolls per pack Manufacturer: _____ Catalogue No: _____	
CHE/154 2	Pipette fillers, acid resistant plastic, for precision filling and dispensing from all standard pipettes, from micro size to 25 cm ³ , complete with release valve for rapid pipetting, green for pipettes 10 cm ³ capacity Manufacturer: _____ Catalogue No: _____	
CHE/155 1	Pipette washer-rinser, polyethylene, operates with water input up to 12 litres per minute Manufacturer: _____ Catalogue No: _____	
CHE/156 1	Platinum wire, 28 SWG (0.32 mm), fused into glass handle, overall length approx 110 mm Manufacturer: _____ Catalogue No: _____	
CHE/157	Deleted	
CHE/158 1	Smoke cell, Whitley Bay type, 4 mm connection sockets, integral illuminator, fixed focussing lens Manufacturer: _____ Catalogue No: _____	
CHE/159 1	Spectrometer, suitable for student use, graduated in 30 minute increments, two Verniers, 180 degrees apart, Collimeter, with 178 mm rack and pinion focusing aperture, 25 mm diameter, variable slit, levelling screws. Prism table, diameter 86 mm (height adjustable and lockable). Telescope, with 178 mm rack and pinion focusing aperture, diameter 25 mm, Ramsden eyepiece. Flint prism, prism clamp, diffraction grating holder, cross line graticule, Vernier magnifier. Complete unit in packing case. Two year warranty. Manufacturer: _____ Catalogue No: _____	

CHE/160 1	Spectral lamp, sodium, to suit above		
	Two year warranty.		
	Manufacturer:	Catalogue No:	
CHE/161 1	Spectral transformer and lamp house, to suit above.		
	Two year warranty.		
	Manufacturer:	Catalogue No:	
CHE/162 6	Spectroscope, direct vision, fixed slit, high quality blazed diffraction grating, viewed via a fixed focus x2 magnifying eyepiece, complete with sample tubes, operating notes and student investigations.		
	Two year warranty.		
	Manufacturer:	Catalogue No:	
CHE/163 5	Sphere, polystyrene, diameter 50 mm, pack 10		
	Manufacturer:	Catalogue No:	
CHE/164 1	Sphere, polystyrene, diameter 25 mm, pack 100		
	Manufacturer:	Catalogue No:	
CHE/165 5	Sphere, polystyrene diameter 63 mm, pack 10		
	Manufacturer:	Catalogue No:	
CHE/166 2	Glue, PVA, for polystyrene spheres above, per tube		
	Manufacturer:	Catalogue No:	
CHE/167 1	Steam generator, capacity 300 cm ³ approx., steam exit pipe diameter 8 mm, AC 230 V, rating 500 W, dimensions 12.5 x 12.5 x 14 cm approx.		
	Manufacturer:	Catalogue No:	
CHE/168 1	Tube, cathode ray, demonstration model in storage case, Teltron or equivalent		
	Manufacturer:	Catalogue No:	
CHE/169 3	Thermometer, digital, range -50 °C to 200 °C (approximately), hand held.		
	Manufacturer:	Catalogue No:	
CHE/170 1	Wire, nichrome, bare, 22 SWG (0.64 mm), 125 g reel		
	Manufacturer:	Catalogue No:	
CHE/171 1	Wire strippers, insulated handles, spring loaded		
	Manufacturer:	Catalogue No:	

Section 2: Glassware		
CHE/200 12	Jointed Glass, organic chemistry sets, one joint size 14/23; comprised of the following: 1 pear shaped flask, 50 cm ³ capacity 1 still head 1 Liebig condenser 1 screw cap adapter 1 air leak/steam inlet tube 1 dropping funnel, 50 cm ³ with GP Rotaflo tap or equal 1 stopper 1 thermometer	
	Manufacturer:	Catalogue No:
CHE/201 2	Pipette, graduated, type I, class B, calibrated for delivery from zero mark at top to graduation mark, face marked, 25 cm ³ capacity x 0.2 cm ³ divisions, pack 5	
	Manufacturer:	Catalogue No:
CHE/202 2	Pipette, graduated, calibrated for delivery from zero mark at top to graduation mark, face marked, 10 cm ³ capacity x 0.1 cm ³ divisions, pack of 5	
	Manufacturer:	Catalogue No:
CHE/203 6	Flask, round bottom, jointed glass, three necks (14/23 each), 50 cm ³	
	Manufacturer:	Catalogue No:
CHE/204 6	Flask, pear shaped distillation, (socket and cone size 14/23), jointed glass, 100 cm ³	
	Manufacturer:	Catalogue No:
CHE/205 3	Flask, volumetric, glass, stoppered (polypropylene), class B, 500 cm ³	
	Manufacturer:	Catalogue No:
CHE/206 2	Flask, volumetric, glass, stoppered (polypropylene), class B, 1000 cm ³	
	Manufacturer:	Catalogue No:
CHE/207 3	Flask, volumetric, glass, stoppered (polypropylene), class B, 250 cm ³	
	Manufacturer:	Catalogue No:
CHE/208 3	Flask, volumetric, glass, stoppered (polypropylene), class B, 100 cm ³	
	Manufacturer:	Catalogue No:
CHE/209 6	Jointed glass, Buchner filter funnel, cone size 29/32, disc diameter 65 mm, funnel diameter 75 mm, sintered disc porosity 3.	
	Manufacturer:	Catalogue No:
CHE/210 6	Jointed glass, Buchner filter flask, push-in type connector to suit 9 mm vacuum tubing, capacity 250 cm ³ , socket size 29/32, approx. height 145 mm, approx. diameter 85 mm.	
	Manufacturer:	Catalogue No:
CHE/211 12	Gas jars, heavy glass, ground flange, 150 mm high x 50 mm internal diameter	
	Manufacturer:	Catalogue No:
CHE/212 12	Gas jar covers, circular sheet glass, for 50 mm int. diameter jars, pack 10	
	Manufacturer:	Catalogue No:

CHE/213 12	Burette, soda glass, 25 cm ³ x 0.1, one way PTFE key stopcock		
	Manufacturer:	Catalogue No:	
CHE/214 6	Dreschel gas washing bottles, 125 cm ³ capacity, socket size 24/29		
	Manufacturer:	Catalogue No:	
CHE/215 6	Dreschel bottle heads, plain, cone size 24/29		
	Manufacturer:	Catalogue No:	
CHE/216 1	Solid-phase extraction, C18 isolate column, 500 mg/3 cm ³ , pack 50		
	Manufacturer:	Catalogue No:	
CHE/217 5	Solid-phase extraction column adaptor, isolate type, pack 10, to suit above		
	Manufacturer:	Catalogue No:	
CHE/218 1	Solid-phase extraction syringe, Leur slip, pack 100, to suit above		
	Manufacturer:	Catalogue No:	
CHE/219 6	Steam jacket and syringe. Syringe graduated 0-100 cm ³ x 0.1 cm ³ , surrounded by borosilicate glass jacket supported in place by two rubber bungs also carrying inlet and outlet tube for steam and hole for thermometer. Overall length (215 mm) x diameter (60 mm).		
	Manufacturer:	Catalogue No:	
CHE/220 15	Test tube, side arm, borosilicate, 150 x 24 mm		
	Manufacturer:	Catalogue No:	
CHE/221 15	Thiele tubes, borosilicate melting point tube, diameter 25 mm, tube length c.165 mm.		
	Manufacturer:	Catalogue No:	
CHE/222 2	Tubing, soda glass, 70/170 mm, outside diameter 6mm, pack 5		
	Manufacturer:	Catalogue No:	
CHE/223 15	U-tube, side arm, 125 x 15 mm		
	Manufacturer:	Catalogue No:	
CHE/224 12	Watch glasses, borosilicate glass, clear, with ground edges, 75 mm diameter		
	Manufacturer:	Catalogue No:	
CHE/225 12	Watch glasses, polythene, 100 mm diameter		
	Manufacturer:	Catalogue No:	
CHE/226 12	Watch glasses, polythene, 80 mm diameter		
	Manufacturer:	Catalogue No:	

Section 4: Chemicals and Reagents

CHE/300 1	Aluminium oxide, 500 g	
	Manufacturer:	Catalogue No:
CHE/301 1	Aluminium powder, 100 g	
	Manufacturer:	Catalogue No:
CHE/302 1	Ammonium chloride, 100 g	
	Manufacturer:	Catalogue No:
CHE/303 1	Ammonium iron(II) sulfate, 250 g	
	Manufacturer:	Catalogue No:
CHE/304 1	Ammonium molybdate, 500 cm ³	
	Manufacturer:	Catalogue No:
CHE/305 1	Ammonium metavanadate, 500 g	
	Manufacturer:	Catalogue No:
CHE/306 1	Ammonium phosphate (di-Ammonium hydrogen orthophosphate), 500 g	
	Manufacturer:	Catalogue No:
CHE/307 1	Ammonium sulphate, 500 g	
	Manufacturer:	Catalogue No:
CHE/308 1	Barium chloride, 100 g	
	Manufacturer:	Catalogue No:
CHE/309 1♣	♣Benzaldehyde, 250 cm ³	
	Manufacturer:	Catalogue No:
CHE/310 1	Benzoic acid, 250 g	
	Manufacturer:	Catalogue No:
CHE/311 1	Bismuth trichloride, 100 g	
	Manufacturer:	Catalogue No:
CHE/312 10♣	♣Bromine, 1 cm ³	
	Manufacturer:	Catalogue No:
CHE/313 1	Bromothymol blue pH indicator, 25 g	
	Manufacturer:	Catalogue No:
CHE/314 1♣	♣Butan-1-ol, 250 cm ³	
	Manufacturer:	Catalogue No:
CHE/315 1	Buffer capsules, pH 4, pack, 5 x 10 capsules	
	Manufacturer:	Catalogue No:
CHE/316 1	Buffer capsules, pH 7, pack, 5 x 10 capsules	
	Manufacturer:	Catalogue No:
CHE/317 1	Buffer capsules, pH 10, pack, 5 x 10 capsules	
	Manufacturer:	Catalogue No:
CHE/318 1♣	♣Butanal (butyraldehyde), 250 cm ³	
	Manufacturer:	Catalogue No:

CHE/319 1♣	♣Butanoic acid (n-butyric acid), 500 cm ³		
	Manufacturer:	Catalogue No:	
CHE/320 1♣	♣Butanone (methyl ethyl ketone), 500 cm ³		
	Manufacturer:	Catalogue No:	
CHE/321 1	♣Calcium carbide, 100 g		
	Manufacturer:	Catalogue No:	
CHE/322 1♣	Calcium hypochlorite (bleaching powder), 500 g		
	Manufacturer:	Catalogue No:	
CHE/323 1	Calcium oxide, <i>powder</i> , 500 g		
	Manufacturer:	Catalogue No:	
CHE/324 1	Citric acid, <i>crystals</i> , 500 g		
	Manufacturer:	Catalogue No:	
CHE/325 1	Copper(II) chloride, 100 g		
	Manufacturer:	Catalogue No:	
CHE/326	DELETED		
CHE/327 1	Copper(I) oxide (cuprous oxide), 250 g		
	Manufacturer:	Catalogue No:	
CHE/328 1	Copper(II) oxide (cupric oxide), 250 g		
	Manufacturer:	Catalogue No:	
CHE/329 1	Copper(II) carbonate hydroxide <i>1- hydrate</i> (cupric carbonate), 250 g		
	Manufacturer:	Catalogue No:	
CHE/330 1♣	♣Cyclohexane, 250 cm ³		
	Manufacturer:	Catalogue No:	
CHE/331 1	Decon 90, or equivalent, 1 litre,		
	Manufacturer:	Catalogue No:	
CHE/332 1	DPD No. 1 tablet to test for free and total chlorine (comparator), 100 tablet per pack		
	Manufacturer:	Catalogue No:	
CHE/333 1	DPD No 3 tablet to test for free and total chlorine (comparator), 100 tablets per pack		
	Manufacturer:	Catalogue No:	
CHE/334 1♣	♣Ethanal (<i>acetaldehyde</i>), 500 cm ³		
	Manufacturer:	Catalogue No:	
CHE/335 1	Ethanoic (<i>acetic</i>) acid, 500 cm ³		
	Manufacturer:	Catalogue No:	
CHE/336 1♣	♣Ethyl benzoate, 250 cm ³		
	Manufacturer:	Catalogue No:	
CHE/337 1	EDTA, disodium salt, 250 g		
	Manufacturer:	Catalogue No:	

CHE/338 1 ♣	♣Ethyl ethanoate (ethyl acetate), 250 cm ³	Manufacturer:	Catalogue No:	
CHE/339 1 ♣	♣Ethanedioic acid (oxalic acid), 250 g	Manufacturer:	Catalogue No:	
CHE/340 1	Glycerol, 500 cm ³	Manufacturer:	Catalogue No:	
CHE/341 1 ♣	♣n-Heptane, 500 cm ³	Manufacturer:	Catalogue No:	
CHE/342 3	Hydrochloric acid, ampoules, 1 mol L ⁻¹ , carton 6 ampoules	Manufacturer:	Catalogue No:	
CHE/343 1	Iron tablets, (200 mg FeSO ₄ per tablet), Ferrotab, Antigen Pharmaceuticals, Roscrea, or equal. Packet 50	Manufacturer:	Catalogue No:	
CHE/344 1	Iron(III) chloride, 250 g	Manufacturer:	Catalogue No:	
CHE/345 1 ♣	♣Lauroyl peroxide (di-Lauroyl peroxide), 10 g	Manufacturer:	Catalogue No:	
CHE/346 1	Liquid paraffin, 250 cm ³	Manufacturer:	Catalogue No:	
CHE/347 1	Lithium chloride, 250 g	Manufacturer:	Catalogue No:	
CHE/348 1	Lycopodium powder, 250 g	Manufacturer:	Catalogue No:	
CHE/349 1	Magnesium carbonate, 500 g	Manufacturer:	Catalogue No:	
CHE/350 1	Magnesium sulfate, 250 g	Manufacturer:	Catalogue No:	
CHE/351 1	Manganese sulfate dihydrate, 250 g	Manufacturer:	Catalogue No:	
CHE/352 1				
CHE/353 1	Methanoic acid (formic acid, 98%), 1 litre	Manufacturer:	Catalogue No:	
CHE/354 1 ♣	♣Methanol, 500 cm ³	Manufacturer:	Catalogue No:	
CHE/355 1	Methyl orange powder, 25 g	Manufacturer:	Catalogue No:	
CHE/356 1 ♣	♣Methylbenzene (toluene), 100 cm ³	Manufacturer:	Catalogue No:	
CHE/357 1 ♣	♣Nitric acid, concentrated, 1 litre	Manufacturer:	Catalogue No:	

CHE/358 1♣	♣n-Octane, 500 cm ³		
	Manufacturer:	Catalogue No:	
CHE/359 1♣	♣Pentane, 500 cm ³		
	Manufacturer:	Catalogue No:	
CHE/360 1♣	♣Petroleum ether (40 to 65 °C), 1 litre		
	Manufacturer:	Catalogue No:	
CHE/361 3	Potassium manganate(VII), ampoules, 0.02 mol L ⁻¹ carton, 6 ampoules		
	Manufacturer:	Catalogue No:	
CHE/362 1	Potassium bromide, 50 g		
	Manufacturer:	Catalogue No:	
CHE/363 1	Potassium chloride, 250 g		
	Manufacturer:	Catalogue No:	
CHE/364	DELETED		
CHE/365	DELETED		
CHE/366 1♣	♣Potassium hydroxide pellets, 250 g		
	Manufacturer:	Catalogue No:	
CHE/367 1	Potassium iodate, 100 g		
	Manufacturer:	Catalogue No:	
CHE/368 1	Potassium sodium tartrate, 250 g		
	Manufacturer:	Catalogue No:	
CHE/369 1	Potassium thiocyanate, 250 g		
	Manufacturer:	Catalogue No:	
CHE/370 1	Propanal (propionaldehyde), 250 cm ³		
	Manufacturer:	Catalogue No:	
CHE/371 1	Propanone (acetone), 500 cm ³		
	Manufacturer:	Catalogue No:	
CHE/372 1	Propan-1-ol, 250 cm ³		
	Manufacturer:	Catalogue No:	
CHE/373 1	Propan-2-ol (iso-propyl alcohol), 250 cm ³		
	Manufacturer:	Catalogue No:	
CHE/374 1	Silver nitrate, 10 g		
	Manufacturer:	Catalogue No:	
CHE/375	DELETED		
CHE/376 1	Sodium ethanoate (sodium acetate), 500 g		
	Manufacturer:	Catalogue No:	
CHE/377 1	Sodium hypochlorite solution, 500 cm ³		
	Manufacturer:	Catalogue No:	

CHE/378 1	Sodium sulfate, 250 g		
	Manufacturer:	Catalogue No:	
CHE/379 1	Sodium sulfite, 500 g		
	Manufacturer:	Catalogue No:	
CHE/380 1	Sodium thiosulfate, 250 g		
	Manufacturer:	Catalogue No:	
CHE/381 1	Solochrome black T, 25 g		
	Manufacturer:	Catalogue No:	
CHE/382 1	Strontium chloride, 250 g		
	Manufacturer:	Catalogue No:	
CHE/383 3	Sodium hydroxide, ampoules, 0.5 mol L ⁻¹ , carton, 6 ampoules		
	Manufacturer:	Catalogue No:	
CHE/384 1	Sulfuric acid, ampoules, 0.5 mol L ⁻¹ , carton, 6 ampoules		
	Manufacturer:	Catalogue No:	
CHE/385 1	Sunflower oil, 250 cm ³		
	Manufacturer:	Catalogue No:	
CHE/386 1♣	♣ Styrene (phenylethene), 1 L		
	Manufacturer:	Catalogue No:	
CHE/387 1	Tin foil, 0.10 mm, 100 g		
	Manufacturer:	Catalogue No:	
CHE/388 1♣	♣ 2,2,4-trimethylpentane (<i>iso-octane</i>), 1 L		
	Manufacturer:	Catalogue No:	
CHE/389 1	Urea, 500 g		
	Manufacturer:	Catalogue No:	
CHE/390 1	Zinc carbonate, 250 g		
	Manufacturer:	Catalogue No:	
CHE/391 1	Zinc powder, 250 g		
	Manufacturer:	Catalogue No:	

Section 4: Radiochemistry		
One Set only to be provided per School see PHY/500-504		
CHE/400 1	Geiger-Muller tube, suitable for classroom use	
	Manufacturer:	Catalogue No:
CHE/401 1	Holder and stand, suitable for use with Geiger-Muller tube CHE/400 above	
	Manufacturer:	Catalogue No:
CHE/402 1	Scaler/ratemeter/timer for Geiger-Muller tube CHE/400 above.	
	Manufacturer:	Catalogue No:
CHE/403 1	Radioactive source kit, set of 3 source types- e.g. alpha (Po-210), beta (Sr-90) and gamma (Co-60) - embedded in colour coded epoxy material, safe for use in classroom. No source to exceed 1.2 μ Ci. To include holder for sources and a range of items needed for demonstration of the differing absorption/ penetration powers and the effect of magnetic field on the three types of radiation. Suitable for use with equipment PHY/500-502 above.	
	Manufacturer:	Catalogue No:
CHE/404 1	"Radioactive" source, electronic, simulated, allows determination of "half-life", random numbers and Poisson distribution curve, powered 12 V a.c./d.c.	
	Manufacturer:	Catalogue No:

Equipment for Science (Chemistry)			
Four Sections			
Section	Code Quantity	Descriptions & Specifications	Total Cost €
Section 1	CHE/100 – CHE/171	Basic Science Equipment.	
Section 2	CHE/200 – CHE/226	Glassware	
Section 3	CHE/300 – CHE/391	Chemicals and Reagents	
Section 4	CHE/400 – CHE/404	Radiochemistry	
Sub-total: €			
Add for VAT: €			
Total Amount for CHE List: €			

Standards, Specifications and Conditions
<p>All equipment shall be durable and safe for school use. Equipment wholly or partly funded from public funds is subject to inspection by officers from the Department of Education and Skills.</p>
<p>It is essential that tenders and tenderers for equipment for school use shall:</p> <ul style="list-style-type: none"> • Comply fully with the specifications and be durable and safe for school use. • Comply fully with the standards as detailed and shall comply fully with European Standards (EN), both established and developing. • Comply with European electrical standards and CE marking as appropriate. • Fully comply with requirements in the Request for Tenders (RFT) document. • Be accompanied by documentation of sufficient detail for full evaluation. • Include the completed and signed certificate of compliance.
<p><u>Award of a contract is conditional on the production of a current tax clearance certificate.</u></p>
<p>Failure to comply with the above may result in the tender being deemed null and void.</p>
<p>Certificate of Compliance with Standards, Specifications and</p>

Conditions

I/We certify that the equipment tendered complies in all respects with the Standards, Specifications and other requirements/conditions specified in this tender document and in the Request for Tenders (RFT).

I/We hold a current tax clearance certificate.

Company: _____

Signed: _____ **Date:** _____

Position: _____