Renaissance Chemicals Products for Laboratories, Advanced Technology and Industry

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Renaissance Chemicals

RAINFOREST FOUNDATION UK SUPPORTER

Renaissance Chemicals Ltd is based at green powered Blackwood Hall Business Park in the English countryside

Technical Support

About Renaissance enquiries@renchem.co.uk **+44 (0) 1757 282101**

Renaissance Chemicals Ltd, an English world-wide supplier of special microscope stains and interesting and unusual chemicals for technical applications such as visible and infra-red fluorescence. We can make advanced deep eutectic solvents, used where they give an advantage over conventional solvents.

Our Industrial section sells Performance Products for Paper, MDF and Seed Dressing Identification. Our successful OBA quencher is also popular in China.

Our special microscope stains are sold to prestigious universities including major USA universities. We regularly supply Japan and China.

We supply high technology companies with tailor made phthalocyanines and perylenes. We have extremely bright coumarins.

Renaissance is a flexible company that puts customers first. If you need something special, please ask. We will try to help.

Climate Change Policy

Renaissance Chemicals manages the business in a way that minimises energy, and natural resources.

We support The Rain Forest Foundation UK

We support Climeworks. Climeworks captures Carbon Dioxide in Iceland, with their special technology.

Energy

We use green energy, including on site wind power.

Travel

Meetings are held remotely using Zoom or Teams

Sometimes visits are necessary, and train is used where possible

If we travel by air, we offset the carbon dioxide

Distribution

In the UK we use pallet distribution networks to minimise journeys

Small packages are sent by air, but contributions are made to The Rain Forest Foundation UK

Full containers of chemicals are still sent overseas by ship. We await the introduction of environmentally friendly shipping

Packaging

Recyclable packaging is used where possible

Property

Our property is insulated to a very high standard

Water

We use water responsibly and don't overuse

Technical Support

Our own laboratory is supported by laboratories at the Universities of Leeds and Huddersfield. We also use an external Analytical Laboratory.

Renaissance Chemicals Ltd is supported with technical advice from Specify Consulting Ltd and other external consultants.

Research Partner

Agrifood X Ltd, 'Green Solutions for Blue Planet'. https://agrifoodx.com/

Our Products

We accept orders from businesses, companies, universities, research organisations, technical organisations and their members and employees.

Section 1 Microscope Stains and Special Stains

Section 2 Specialites

Section 3 Performance Products for Industry

Renaissance Stains	Availability	Uses and References	CAS Number	Units
Renaissance SCRI 2200 Liquid	In stock	**Stain for fungal hyphae evaluated by Scottish Crop Research Association, was superior to Calcofluor MR2)** **In situ visualisation of fungi in soil thin sections: problems with crystallisation of the fluorochrome FB28 (Calcofluor MR) and improved staining by SCRI Renaissance 2200** Mycol. Res. 106 (3): 293-297 (March 2002 Harris K. Crabb D. Et. Al.	.....	50g
Renaissance SR2200 Liquid	In stock	**very popular stain for Arabidopsis** **A simple and versatile cell wall staining protocol to study plant reproduction** *Plant Reprod* 28(3-4): 161-169. Musielak, T. J., Schenkel, L., Kolb, M., Henschen, A. and Bayer, M. (2015) Use of SCRI Renaissance 2200 (SR2200) as a Versatile Dye for Imaging of Developing Embryos, Whole Ovules, Pollen Tubes and Roots. *Bio-protocol* 6(18): e1935. DOI: 10.21769/BioProtoc.1935 Musielak, T. J., Bürgel, P., Kolb, M. and Bayer, M. (2016).	.....	50g
Renaissance SR3300 Liquid	In stock	**SR3300 is liquid countertype to Calcofluor for researchers needing this widely referenced stain. Note it is less soluble that SR2200. SR2200 is recommended if superior solubility is needed. SR3300 can be combined with Evans Blue to prevent autofluorescence of sections. As Evans Blue is classified as May Cause Cancer, Direct Violet 51 Liquid may mask the autofluorescence of Dityrosine, Tyrosine, Tryptophan and possibly collagen.** **A new spectrophotometric method of assay for chitosanase based on calcofluor white dye binding** **Carbohydrate Polymers** Volume 34, Issue 4, 31 December 1997, Pages 343-346 D. Somashekar R. Joseph	CI 40622 CAS no. 4193-55-9	100g

		Examination of tissue for parasites by fluorescent microscopy Histopathology, 12, 553-5 (1988) Green, L.K., et al. **Calcofluor white: a useful tool for the diagnosis of invasive pulmonary aspergillosis in the molecular diagnosis era** Conference Paper Teresa Pelaez Garcia, Ana Miyares, Alicia Galar, Rocio Garcia-Rubio, Jesus Guinea, Pilar Escribano Martos, Antonio Vena, Ana Fernandez Cruz, Maricela Valerio Minero, Patricia Munoz, Emilio Bouza **Use of Calcofluor White for Detection, Identification, and Quantification of Phytoplanktonic Fungal Parasites** https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2675195/ Serena Rasconi, Marlène Jobard, Lionel Jouve, and Télesphore Sime-Ngando **Determination of Chitin Content in Insects: An Alternate Method Based on Calcofluor Staining** Published online 2020 Feb 18 2020; 11: 117 Front. Physiol. Bianca Santos Henriques,Eloi Souza Garcia, Patricia Azambuja, and Fernando Ariel Genta **Investigating chitin deacetylation and chitosan hydrolysis during vegetative growth in Magnaporthe oryzae Cell.** Microbiol.2017 Sep; 19(9): e12743. Published online 2017 Apr 26. Geoghegan IA, Gurr SJ **Chitosan Is Necessary for the Structure of the Cell Wall, and** **Full Virulence of Ustilago maydis** https://www.mdpi.com/journal/jof José Alejandro Sánchez-Arreguin, M. Lucila Ortiz-Castellanos , Angélica Mariana Robledo-Briones Claudia Geraldine León-Ramírez , Domingo Martínez-Soto and José Ruiz-Herrera. **In vitro damage of Candida albicans biofilms by chitosan** Experimental and Therapeutic Medicine September-2014 Volume 8 Issue 3 Pages: 929-934 Yu Pu, Aibo Liu, Yuqiang Zheng, Bin Ye		

Nile Red		**Solvatochromic dye used in many tests, including flow cytometry. It can identify lipid droplets on leafs. It can identify microplastic contamination.** **Spectrofluorometric studies of the lipid probe, nile red** Department of Pathology, School of Medicine, University of South Carolina, Columbia, SC 29208 Phillip Greenspan and Stanley D. Fowler **The use of fluorescent Nile red and BODIPY for lipid measurement in microalgae** *Biotechnology for Biofuels* volume 8, Article number: 42 (2015) Judith Rumin, Hubert Bonnefond, Bruno Saint-Jean, Catherine Rouxel, Antoine Sciandra, Olivier Bernard, Jean-Paul Cadoret & Gaël Bougaran **Lost, but Found with Nile Red: A Novel Method for Detecting and Quantifying Small Microplastics (1 mm to 20 µm) in Environmental Samples** *Environ. Sci. Technol.* 2017, 51, 23, 13641–13648Publication Date: November 7, 2017 Gabriel Erni-Cassola, Matthew I. Gibson, Richard C. Thompson and Joseph A. Christie-Oleza **Flow cytometry, with double staining with Nile red and anti-CD3 antibody, to detect phospholipidosis in peripheral blood lymphocytes of rats treated with amiodarone** Cell Biol Toxicol 2009 Dec;25(6):587-98 Maria Elisa Perico , Federica Crivellente, Ivo Faustinelli, Anna Suozzi, Patrizia Cristofori **Exploring the Efficacy of Nile Red in Microplastic Quantification: A Co-staining Approach** *Environ. Sci. Technol. Lett.* 2019, 6, 10, 606–611Publication Date: September 19, 2019 Thomas Stanton, Matthew Johnson, Paul Nathanail, Rachel L. Gomes, Teresa Needham and Amanda Burs **Conn's Biological Stains: A Handbook of Dyes, Stains and Fluorochromes for Use in Biology and Medicine** R. Horobin, J. Kiernan	7385-67-3	250mg

Nile Blue A	Fast	**A fat and lipid stain; differentiation of melamines and lipofuchsins. Stain for phospholipids. Redox indicator. Fluorescent Stain. Indicator used for glucose detection.** **Nile blue A as a fluorescent stain for poly-beta-hydroxybutyrate**. Appl Environ Microbiol. 1982 Jul; 44(1): 238–241 A G Ostle and J G Holt **Nile Blue** Reference Module in Neuroscience and Biobehavioral Psychology, 2017 Nile blue staining is used for the differentiation of melanin and lipofuscin, and silver nitrate–gold chloride demonstrates lipofuscin granula as small distinct dots, surrounded by a halo (Gurr, 1962) **Nile Blue Functionalized Graphene Aerogel as a Pseudocapacitive Negative Electrode Material across the Full pH Range** *ACS Nano* 2019, 13, 11, 12567–12576 Yasin Shabangoli Mohammad S. Rahmanifar Abolhassan Noori Maher F. El-Kady Richard B. Kaner and Mir F. Mousavi **The Use of Nile Blue Sulphate in the Histochemical Identification of Phospholipids** Stain Technology Published online: 12 Jul 2009 Pages 249-256 M. G. Dunnigan **Nile Blue Histochemical Method for Phospholipids** Stain Technology Pages 13-18 | Received 26 Jun 1952, Published online: 12 Jul 2009 Z. Menschik **Nile Blue as a redox indicator in cerate oxidimetry** Indian J. Chem., v. 13, no. 3, pp. 283-284 Venkateswara Rao, N; Avadhanulu, A B; Sri Krishna, K	3625-57-8	1g

Rose Bengal		**Protoplasm stain with many other uses** **Quote from Science Direct** Rose Bengal is a mildly toxic bright red stain that is adsorbed to and by compromised epithelial cells, mucous and fibrous tissue **Rose Bengal is used to suppress bacterial growth in several microbiological media**, including Cooke's Rose Bengal agar. Rose Bengal has been used as a protoplasm stain to discriminate between living and dead micro-organisms, particularly Foraminifera, since the 1950s when Bill Walton developed the technique. **Persistence of Nosema locustae Spores in Soil as Determined by Fluorescence Microscopy.** Appl Environ Microbiol. 1984 Feb;47(2):313-8. Germida JJ **Rose Bengal staining - diagnostic aid for potentially malignant and malignant disorders: a pilot study.** Indian J Dent Res. 2012 Sep-Oct;23(5):561-4 Mittal N, Palaskar S, Shankari M. **Use of Phloxine B and Rose Bengal Stains to Facilitate Sorting Benthic Samples** Transactions of the American Microscopical SocietyVol. 86, No. 2 (Apr., 1967), pp. 221-223 (3 pages) William T. Mason, Jr. and Paul P. Yevich **Analysis of microplastics in wetland samples from coastal Ghana using the Rose Bengal stain** Environmental Monitoring and Assessment 192(4) March 2020 Francis Gbogbo, James Benjamin Takyi, Julliet Ewool, Max K. Billah **A method for the characterisation of microplastics in sludge** Methods X Volume 6, 2019, Pages 2776-2781 Pablo Campo, Anita Holmes, Frederic Coulon	4159-77-7	5g

Auramine O	Fast	**Staining paraffin sections of infected tissue. Acid-fast organisms exhibit fluorescence.** **On-line reference** http://whocctblab.fondazionesanraffaele.it/uploads/2/0/8/2/20828554/_ios_ebp-_auramine_staining.pdf **Bailey & Scott's Diagnostic Microbiology**. 12th ed 2007, Publisher Elsevier Editors: Betty A. Forbes, Daniel F. Sahm & Alice S. Weissfeld **District Laboratory Practice in Tropical Countries** – Part-2- 2nd Edn Update Monica Cheesebrough- **Clinical Microbiology Procedure Handbook** Editor H.D. Isenberg, Albert Einstein College of Medicine, New York, Publisher ASM (American Society for Microbiology), Washington DC. **Auramine O, a very flexible dye, almost no aggregation was detected on cellulose, using ethanol as solvent for sample preparation**. From: Handbook of Surfaces and Interfaces of Materials, 2001 **Fluorescence Change of Auramine O Bound to Chromatophores of *Rhodospirillum rubrum* — Analysis in Connection to Ionic Environment and Ion Transport** The Journal of Biochemistry, Volume 71, Issue 2, February 1972, Pages 275–284, Yoshichika KOBAYASHI Mitsuo NISHIMURA **Method for rapid detection of spores by fluorescent staining** **Patent Application** WO2015037578A1	2465-27-2	25g

Phloxine B	Fast	**For staining inclusion bodies and nuclei. Thomas's method for malarial parasites. For staining haemoglobin and hemosiderin. For staining keratin, pre-keratin and mucin. A beta cell stain used in the haematoxylin-Phloxine-Saffron stain** **Efficacy of Phloxine B as a Bactericidal Agent in Plants** J. Agric. Food Chem. 1998, 46, 4, 1637–1641 Kenneth O. Willeford Todd A. Parker Susan V. Diehl **Use of Phloxine B and Rose Bengal Stains to Facilitate Sorting Benthic Samples** Transactions of the American Microscopical Society Vol. 86, No. 2 (Apr, 1967), pp. 221-223 (3 pages)William T. Mason, Jr. and Paul P. Yevich **Photoelectric Properties of DSSCs Sensitized by Phloxine B and Bromophenol Blue** International Journal of Photoenergy 2016 Penghui Ren,Yuanzuo Li,Yuehua Zhang,Hongshuai Wang,and Qungui Wang **Phloxine B as a Probe for Entrapment in Microcrystalline Cellulose** Molecules. 2012 Feb; 17(2): 1602–1616. Paulo Duarte, Diana P. Ferreira, Isabel Ferreira Machado,Luís Filipe Vieira Ferreira, Hernan B. Rodríguez, and Enrique San Román **Complementary effect of Phloxine B on the insecticidal efficacy of Isaria fumosorosea SFP-198 wettable powder against greenhouse whitefly, Trialeurodes vaporariorum West.** Pest management science (2010-08-19) Jae Su Kim, Yeon Ho Je, Jae Young Choi	18472-87-2	25g

Vanillin **Not for food use**	In Stock	**Useful stain for thin layer chromatography. Used with phloroglucinol. Used for visualising tannins. Microscope stain for fungi.** **Guide to Chemicals for Russula Fungal Microscopy** Sulphovanillin This is a solution of vanillin in strong sulphuric acid. The main use is in staining the cap cystidia of certain Russula species where it produces colours varying from black to purple-grey. The soln. is sometimes made up in advance when it turns black, but still works. The formula is 5mg. of vanillin crystals dissolved in 6ml. of 80% sulphuric acid. Some people make it up on the slide by adding a tiny amount of vanillin crystals to a drop of 80% sulphuric acid and stirring with an acid resistant tool (e.g. glass or stainless steel). A pale straw-coloured soln. is what's required. It is important to dissolve all the crystals otherwise they can crack the cover slip when you press it down. By Robin Dean **Vanillin-HCl method for condensed tannins: Effect of organic solvents used for extraction of tannins** J Chem Ecol 1993 Apr;19(4):613-21 Makkar HP Becker K **Vanillin-hydrochloric acid as a histochemical test for tannin** Stain Technol 1975 Sep;50(5):315-7 R O Gardner **Vanillin-condensed tannin study using flow injection spectrophotometry** Talanta Volume 51, Issue 1, 24 January 2000, Pages 1-6 Ferreira, Nogueira **Vanillin can be used to visualise many alcohols, aldehydes and ketones in TLC spots**, reference Lisa Nichols Butte College	121-33-5	100g

1% Acridine Orange Aqueous Solution	Made to order	**DNA, RNA fluorescent dye solution.** **Lambda max (abs) 489 – 495nm** **Highly selective acridine and ethidium staining of bacterial DNA and RNA.** Biotechnic & histochemistry: 71(3), 130-136 (1996-05-01) The acridine dyes acridine orange (AO) and coriphosphine O (CPO) and ethidium bromide (EtBr) were used to stain bacterial digests after electrophoresis in native and denaturing (SDS) polyacrylamide gels and were shown to stain DNA and RNA preferentially over other J G Bruno et al. **Antiapoptotic effects of vitamins C and E against cypermethrin-induced oxidative stress and spermatogonial germ cell apoptosis** J Biochem Mol Toxicol 2018 Aug;32(8) Jitender Kumar Bhardwaj , Priya Kumari , Priyanka Saraf , Abhay Singh Yadav **Determination of ACC-induced cell-programmed death in roots of Vicia faba ssp. minor seedlings by acridine orange and ethidium bromide staining** PMID 22350735; DOI 10.1007/s00709-012-0383-9; Protoplasma 2013 Feb; 250(1):121-8 Anna Byczkowska-, Anita Kunikowska, Andrzej Kaźmierczak **Staining Paraffin-Embedded Plant Tissues with Acridine Orange** **Stain Technology** Volume 42, 1967 - Issue 5 Franklin W. Martin, Sonia Ortiz **Acridine Orange Indicates Early Oxidation of Wood Cell Walls by Fungi** Published: July 25, 2016 Carl J. Houtman ,Peter Kitin,Jon C. D. Houtman,Kenneth E. Hammel,Christopher G. Hunt https://doi.org/10.1371/journal.pone.0159715 https://www.researchgate.net/figure/Acridine-orange-stains-cellulose-red-fluorescence-autofluorescence-of-lignin-cutin_fig5_260809549	65-61-2 Aqueous solution	45g

Allura Red	In Stock	Strong red stain used by amateur microscopists, also used as a strong red dye. Not for cosmetic or food use **Behaviour of the adsorption of Allura Red dye by chitosan beads and nanoparticles** *Nanotechnology for Environmental Engineering* (2022) Sánchez-Duarte Reyna G., Villegas-Peralta Yedidia, Martínez-Macias María del Rosario, López-Cervantes Jaime, Sánchez-Machado Dalia I. & Correa-Murrieta Ma. A. **Determination of the Allura Red Concentration in a Sports Drink or Other Commercial Products** https://www.webassign.net/question_assets/ucscgencheml1/updated_labs2020/lab-09-procedure-2020.pdf **A reusable and sensitive electrochemical sensor for determination of Allura red in the presence of Tartrazine based on functionalized nanodiamond@SiO_2@TiO_2; an electrochemical and molecular docking investigation** Food Chem Toxicol 2022 Jun Mohammad Mehmandoust , Pouran Pourhakkak. Farzaneh Hasannia. Özgür Özalp , Mustafa Soylak , Nevin Erk	25956-17-1	100g

Malachite Green Oxalate (Basic Green 4)	Fast	**In microbiology, distinction of diphtheria and other bacteria. A vital stain for onion epidermis.** **Review of Methods for the Detection and Determination of Malachite Green and Leuco-Malachite Green in Aquaculture** Crit Rev Anal Chem 2019;49(1):1-20 Xinhui Zhou , Jiaran Zhang , Zhongli Pan , Daoliang Li **Endospore Staining** https://microbiologie-clinique.com/endospore-staining-malachite-green.html **Electrochemical Behavior of Malachite Green in Aqueous Solutions of Ionic Surfactants** https://doi.org/10.1155/2013/839498 Mohammad Mijanur Rahman,M. Yousuf A. Mollah,M. Muhibur Rahman,and Md. Abu Bin Hasan Susan **Malachite green, a valuable reagent to monitor the presence of free COOH on the solid-phase.** Tetrahedron Letters, 41 (38), 7391-7394 (2000) Attardi ME **Endospore Staining** https://microbiologie-clinique.com/endospore-staining-malachite-green.html **Electrochemical Behavior of Malachite Green in Aqueous Solutions of Ionic Surfactants** https://doi.org/10.1155/2013/839498 Mohammad Mijanur Rahman,M. Yousuf A. Mollah,M. Muhibur Rahman,and Md. Abu Bin Hasan Susan **Malachite green, a valuable reagent to monitor the presence of free COOH on the solid-phase.** Tetrahedron Letters, 41 (38), 7391-7394 (2000) Attardi ME **Improved Method for Studying Grass Leaf Epidermis** Stain Technology Volume 64, 1989 - Issue 5 Pages 239-242 J. D. Theunissen Published online: 12 Jul 2009	2437-29-8	25g

Naphthol Green B **Acid Green 1 Powder**	In stock	**Collagen stain with many other uses. It forms a useful solution in Formic Acid and is the colour component of Hercules Size Test Ink (HST ink) TAPPI TEST METHOD 530** **Poly (Naphthol Green B) film based sensor for resolution of dopamine in the presence of uric acid: A voltammetric study** ***Anal. Methods***, 2011,**3**, 2068-2072 Umesh Chandra, B. E. Kumara Swamy, Ongera Gilbert and B. S. Sherigara **Development of eco-friendly CO_2-responsive cellulose nanofibril aerogels adsorbents for anionic dyes removal** Journal of Hazardous Materials Volume 405, 5 March 2021 Lin Yang, Yifei Zhan, Yujia Gong, Erhui Ren Et Al **Kinetics and Mechanism of the Oxidation of Naphthol Green B by Peroxydisulphate Ion in Aqueous Acidic Medium** International Journal of Inorganic Chemistry Volume 2014 B. Myek, S.O. Idirs, J.F. Iyun **Poly (naphthol green B) modified carbon paste electrode for the analysis of paracetamol and norepinephrine** *Ionics* volume 25, pages 1845–1855 (2019) H. Jayadevappa B.E. Kumara Swamy Chethan M Kuskur	19381-50-1	50g 100g 500g
Jenke's Stain	Made to order	**Zinc free triiodide stain for cellulose and paper fibres**	Magnesium Iodine Complex	60 ml
Herzberg Stain **Behrens Stain**		**Zinc triiodide Chloride stain for cellulose and paper fibres**	Zinc iodine complex	100ml
Other fibre stains	Made to order	**Triiodide-phosphoric acid stain and method for cellulose fiber evaluation** **USP 4978364A**	Mixture	.....

		TAPPI 401-om 93 Fibre Analysis, Other Stains **Analytical Staining of Cellulosic Materials: A Review** Bioresources May 19 Martin A. Hubbe, Richard P. Chandra, Dilek Dogu, and S. T. J. van Velzen **Iodine staining as a useful probe for distinguishing insulin amyloid polymorphs** Scientific Reports volume 10, Article number: 16741 (2020) Takato Hiramatsu, Naoki Yamamoto, Seongmin Ha, et al **Differential staining for cellulosic and modified plant cell walls** Biotech Histochem1996 Mar;71(2):71-2 B Mori , L M Bellani **Selected Simple Methods of Plant Cell Wall Histochemistry and Staining for Light Microscopy** Methods Mol Biol 2019; 1992:27-42. Aleš Soukup		
Hercules Size Test Ink	Made to order	TAPPI 530-pm 89 method for testing the degree of sizing of paper	Acid Green 1 / Formic acid	1% formic or 10% formic per litre
Phloroglucinol	Fast	**Wiesner stain for lignin, Tollens's stain for pentoses, Gunzberg (alcoholic phloroglucinol / vanillin) stain for gastric hydrochloric acid. Plant rooting stimulant.**	108-73-6	25g

Biebrich Scarlet (Ponceau BS)	Fast	Used with picric acid/aniline blue for staining collagen, recticulum, muscle, and plasma. Luna's method for erythrocytes & eosinophil granules. Guard's method for sex chromatin and nuclear chromatin. Can be used for selective staining of extremely basic proteins **Interaction of Biebrich Scarlet with keratoses from performic acid-Oxidized wool** Journal of Applied Polymer Science 16(12): 3113-3121 1972 Roa, L.; Rattee, I.	4198-99-0	25g
Crystal Violet	Fast	Gram stain Gram positive/Gram negative bacteria, and filaments. Holzer's method for glial fibers (nerve). Amyloid in pathological human tissue. Determining chromatin & nucleoli in plant tissue. **Crystal Violet and Erythrosin in Plant Anatomy** **Stain Technology** Volume 1, 1926 - Issue 1 Gemma Jackson **Two new effective semi selective crystal violet pectate media for isolation of *Pectobacterium* and *Dickeya*** Plant Pathology Volume 61, Issue2 April 2012 Pages 339-345 V. Hélias, P. Hamon, E. Huchet, J. V. D. Wolf, D. Andrivon	548-62-9	1g

Erythrosin B (Erythrosin extra bluish)	Fast	**Used with methylene blue as a plasma stain for nerve cells. Used with crystal violet for plant tissue.** **Erythrosin B: a versatile colorimetric and fluorescent vital dye for bacteria** Biotechniques 2020 Jan;68(1):7-13 Josef D Franke , Ann L Braverman , Alison M Cunningham , Erin E Eberhard , Greg A Perry **Chemical bath deposition of transparent ZnO films incorporated with erythrosine B molecules and their synergetic electro/photochromic properties** **CrystEngComm Issue 14 2020** Ryousuke Yumiyama Daiki Hyakutake Et Al **Resonance Rayleigh scattering method for the determination of chitosan using erythrosine B as a probe and PVA as sensitization** Food Chem 2018 Jan 15;239:126-131 Caijuan Ma , Weiai Zhang , Zhengquan Su , Yan Bai	15905-32-5	10g
Bismarck Brown Y	Fast	PAP for staining smears. Nuclei & granules. Mucin & calciform cells of intestine, cartilage & embryo. **Adsorption of Bismarck Brown R Dye onto Multiwall Carbon Nanotubes** Journal of Environmental Analytical Chemistry (2014) Kamil AM	10114-58-6	25g
Cresyl Fast Violet, (Cresyl Violet Acetate)	Fast	**Vogt's method for nerve cells. A neurological tissue stain. Nissl substance & PAS-positive material. Powers & Clark method for spinal cord and brain with formalin or fixed with Bouin's.** **A CRESYL FAST VIOLET STAIN FOR BACTERIA AND FUNGI IN TISSUE** Stain Technol 1964 Jan; 39:1-5 H PUCHTLER, F SWEAT **Cresyl violet: a red fluorescent Nissl stain** J Neurosci Methods 1990 Aug;33(2-3):129-33 A Alvarez-Buylla , C Y Ling, J R Kirn	18472-89-4	1g

		Photochemistry of sensitizing dyes: spectroscopic and redox properties of cresyl violet *J. Phys. Chem.* 1991, 95, 11, 4406–4410 David I. Kreller Prashant V. Kamat **Cresyl violet: a superior fluorescent lysosomal marker** Traffic Volume17, Issue12 December 2016 Pages 1313-1321 Philip P. Ostrowski Gregory D. Fairn Et Al.		
Hoechst 33258	ask	DNA label used in fluorescence microscopy and flow cytometry	23491-45-4	.....
Hoechst 33342	ask	Similar-to 33258 but more lipophilic. Stain for eukaryotic cell nucei.	875756-97-1	.....
Nuclear Fast Red Sodium Salt 90% min.	3-4 weeks	Counterstain, used for staining nuclei.	6409-77-4	500g
Fluorescein Free Acid	Ex stock	Solvent soluble fluorescein, used where normal fluorescein is unsuitable	2321-07-5	1g
Wright's Stain	Fast	For differentiation of blood corpuscles. Used with brilliant cresyl blue for staining platelets and reticulum of immature red cells. For staining blood and bone marrow films.	Mixture of eosin and methylene blue	10g

Fluorescers	Availability	Uses	CAS Number	Units
Fluorescein free acid, Solvent Yellow 94	14 - 21 days	fluoresces in solvent systems, used where normal fluorescein is unsuitable	2321-07-5	1kg
FBA 140	Ex stock	Industrial crack detection, Optical brightener for viscose but lightfastness poor	91-44-1	25kg
Coumarin 1 (99%min)	Ex stock	Laser Dye, laboratory fluorescer, tracer	91-44-1	1kg
Coumarin 311	Ex stock	Laser Dye, laboratory fluorescer, tracer	87-01-4	25g
Coumarin 7 (97% min)	Ex stock	Laser Dye, very strong laboratory fluorescer	27425-55-4	300g
Coumarin 7 (99%) min	ask	Laser Dye, very strong laboratory fluorescer	27425-55-4	10g
7-(Diethylamino)-3-phenylcoumarin	Ex stock	Light stable extremely bright solvent soluble fluorescer	84865-19-0	10g
Solvent Red 49 / Rhodamine B Base	Ex stock	Very strong bright pink solvent soluble fluorescent dye, used for tracing and crack detection	509-34-2	Available in laboratory and industrial quantities, prices on request

Phthalocyanines	Availability	Uses	CAS Number	Units
Cobalt (11) phthalocyanine 98% min	In Stock	Versatile phthalocyanine with multiple uses including electrodes and catalysis **Paper-based electrodes modified with cobalt phthalocyanine colloid for the determination of hydrogen peroxide and glucose** **Analyst, Issue 7, 2020** A. Sánchez-Calvo, A. Costa Garcia, M.C.Blanco Lopez **Cobalt Phthalocyanine Modified Electrodes Utilised in Electroanalysis: Nano-Structured Modified Electrodes *vs.* Bulk Modified Screen-Printed Electrodes** Sensors (Basel) Volume 14(11); 2014 Nov Andres Fuentes, Ricardo Fuentes, Enrique Cabello, Cristina Conde, Isaac Martin **Electrocatalytic activity of cobalt phthalocyanine CoPc adsorbed on a graphite electrode for the oxidation of reduced l-glutathione (GSH) and the reduction of its disulfide (GSSG) at physiological pH** January 2007, Volume70(Issue1)Pages, p.147 To - 154 - Bioelectrochemistry N. Perira-Rodrigues R. Cofre J.H. Zagal F. Bedioui **Enhancing Electrochemical Carbon Dioxide Reduction by Polymer-Encapsulated Cobalt Phthalocyanine through Incorporation of Graphite Powder** Department of Chemistry, University of Michigan Taylor L. Soucy Yingshuo Liu Jonah B. Eisenberg, Charles C. L. McCrory **Electrocatalytic and Solar-Driven Reduction of Aqueous CO2 with Molecular** **Electrocatalytic and Solar-Driven Reduction of Aqueous CO2 with Molecular Cobalt Phthalocyanine-Metal Oxide Hybrid Material** Souvik Roy, Melanie Miller, Julien Warnan, Jane Leung, Constantin Sahm, Erwin Reisner	3317-67-7	100g 10g
Manganese (11) phthalocyanine	made to order, 4 – 6 weeks from date of order	Manganese (II) phthalocyanine modified electrodes are ideal for the determination of hydrogen peroxide at a low detection potentials. These electrodes are recommended for the development of enzymatic biosensors based on oxidases.	14325-24-7	50 – 500g

		Used in hydrogen sulphide sensors to detect spoilt food and sensors to differentiate cheeses Spectroelectrochemical studies of manganese phthalocyanine thin films for applications in electrochromic devices Journal of Electroanalytical Chemistry 524 /525 (2002) 81 /89 Cheng-Lan Lin, Chia-Chi Lee, Kuo-Chuan Ho * Department of Chemical Engineering, National Taiwan University, Taipei 10617, Taiwan, ROC Redox potentials of metal phthalocyanines in non-aqueous media Can. J. Chem. 54, 2514 (1976). A. B. P. LEVER and J. P. WILSHIRE Department of Chemistry, York University, Ont., Canada M3J I P 3 **Electrochemistry of manganese phthalocyanine in nonaqueous media** *Inorg. Chem.* 1981, 20, 8, 2550–2553 A. B. P. Lever P. C. Minor J. P. Wilshire		
Zinc (11) phthalocyanine 98% min	made to order 3 – 4 weeks	Versatile phthalocyanine used in catalysis, photoconductors to photo-oxidise cyclohexane **Zinc phthalocyanine photocatalyzed oxidation of cyclohexene.** J. Mol. Catal. A: Chem., 219(2), 201-207 (2004)	14320-04-8	100g

		Sehlotho N and Nyokong T **Photoelectrochemical sensor based on zinc phthalocyanine semiconducting polymer dots for ultrasensitive detection of dopamine** Sensors and Actuators B: Chemical Volume 360, 1 June 2022, 131619 Jinyun Peng, Xueying Li, Yuxia Liu, Wenfeng Zhuge, Cuizhong Zhang, Yingying Huang **Zinc Phthalocyanine Sensing Mechanism Quantification for Potential Application in Chemical Warfare Agent Detectors** *Sensors* **2022**, *22*(24), 9947 Paulina Powrożn, Wiesław Jakubikik, Fernando B. Dias, Maciej Krzywiecki, Piotr Pander, Barbara Solecka **A novel thiocyanate-selective electrode based on a zinc-phthalocyanine complex**Anal Bioanal Chem 2006 Jul;385(5):926-30 Wen-Ju Xu , Ya-Qin Chai, Ruo Yuan, Su-Li Liu **Zinc Oxide–Zinc Phthalocyanine Interface for Hybrid Solar Cells** *J. Phys. Chem. C* 2012, 116, 29, 15439−15448 Giuseppe Mattioli Claudio Melis Giuliano Malloci Francesco Filippone Paola Alippi Paolo GiannozzIl Alessandro Mattoni Aldo Amore Bonapasta **Zinc octacarboxylic phthalocyanine/lutein dyads co-adsorbed nanocrystalline TiO_2 electrode: enhancement in photovoltaic performance of dye-sensitized solar cells** *Journal of Materials Science* **volume 48**, pages4883–4891 (2013) L. Jin, Z. L. Ding & D. J. Chen **Infra-red and Raman spectroscopy of free-base and zinc phthalocyanines isolated in matrices**. Physical Chemistry Chemical Physics **2010**, *12* (35) Ciaran Murray, Nadia Dozova, John G. McCaffrey, Simon FitzGerald, Niloufar Shafizad Claudine Crépin		250g

Iron (11) Phthalocyanine >99% min	made to order	Discovered by Scottish Dyes, research chemical with many uses **Iron phthalocyanine as an efficient and versatile catalyst for *N*-alkylation of heterocyclic amines with alcohols: one-pot synthesis of 2-substituted benzimidazoles, benzothiazoles and benzoxazoles** **Green Chemistry Issue 6 2013** Manju Bala, Praveen Kumar Verma, Upendra Sharma, Neeraj Kumar and Bikram Singh **Iron(III) phthalocyanine supported on a spongin scaffold as an advanced photocatalyst in a highly efficient removal process of halophenols and bisphenol A.** J Hazard Mater M. Norman; S. H. Ehrlich; T. Jesionowski Et Al. **Iron Phthalocyanine/Graphene Composites as Promising Electrocatalysts for the Oxygen Reduction Reaction** Department of Organic Material Science and Engineering, Pusan National University, Busan 46241, Korea Department of Industrial Chemistry, Pukyong National University, Busan 48513, Korea Jong S. Park, Dong Wook Chang **Boosting the performance of iron-phthalocyanine as cathode electrocatalyst for alkaline polymer fuel cells through edge-closed conjugation** *ACS Applied Materials & Interfaces* , Volume 10, Issue 34 Heyou Zhang, Shiming Zhang, Ying Wang Jiaojiao Si, Yongting Chen, Lin Zhuang,Shengli Chen **Electrochemical Sensor Based on Iron(II) Phthalocyanine and Gold Nanoparticles for Nitrite Detection in Meat Products** Sensors (Basel). 2022 Aug; 22(15): 5780. Svetlana I. Dorovskikh, Darya D. Klyamer, Anastasiya D. Fedorenko, Natalia B. Morozova, and Tamara V. Basova	132-16-1	.....

Cobalt (11) 1,4,8,11,15,18,22,25-Octabutoxy-29H,31H-phthalocyanine	made to order	Toluene soluble Cobalt Phthalocyanine CAS 365218-28-6	365218-28-6	2g
Zinc (11) 1,4,8,11,15,18,22,25-Octabutoxy-29H,31H-phthalocyanine	made to order	Zinc phthalocyanine modified to give special solubility properties Lambda max (abs) toluene circa 805nm	107227-89-4	2g
Aluminium (111) Phthalocyanine Hydroxide	made to order	**Functionalised phthalocyanine CAS 15554-15-1** Reach Registered for use as an intermediate **Aluminum phthalocyanine hydroxide-loaded thermos responsive biomedical hydrogel: A design for targeted photosensitizing drug delivery** Journal of Molecular Liquids Volume 3 41, 1 November 2021, 117421 Patricia Magalhães Barbosa, Katieli da Silva Souza Campanholi Et Al. **STUDIES ABOUT PHTHALOCYANINE PHOTOSENSITIZERSTO BE USED IN PHOTODYNAMIC THERAPY** Romanian Reports in Physics, Vol. 65, No. 3, P. 1032–1051, 2013 A. STAICU, A.PASCU, A.NUTA, Et Al. **Aggregation of Aluminum Phthalocyanine Hydroxide in Water/Ethanol Mixtures** Journal of the Brazilian Chemical Society 25(5) May 2014 Tayana Mazin Tsubone Bruno Henrique Vilsinski Adriana Passarella Gerola **Photophysical efficiency-boost of aqueous aluminium phthalocyanine by hybrid formation with nano-clays**	15554-15-1 EC 947-645-2	2g

		RSC Chem. Commun., 2015 Mark C. Staniford, Marina M. Lezhnina, Malte Gruener, Et Al.		
Other Phthalocyanines and Naphthalocyaines	made to order	We can supply many other phthalocyanines. If you need a special phthalocyanine please ask. Some phthalocyanines are purified by sublimation. Naphthalocyaines are difficult to synthesise and very expensive, but we will try to help.	.....	.....

Perylenes	Availability	Uses	CAS Number	Units
N,N'-bis(2-ethylhexyl)-3,4,9,10-perylene-bis(dicarboximide) CAS number 82531-03-1	Ask	Solar cell material also known as Plastic Orange 8160	82531-03-1	.....
1,6,7,12-tetrachloro-3,4,9,10-perylene-bisanhydride CAS number 156028-26-1	Made to order	Chemical intermediate	156028-26-1	.....
3,4,9,10-perylene-bisanhydride CAS number 128-69-8	Made to order	Important chemical intermediate and component of security inks	128-69-8	.....
Perylene Red CAS number 123174-58-3	Ask	Solvent soluble fluorescent red dye with extremely high quantum yield	123174-58-3	.....
N,N'-bis(1-phenyl-1-ethyl)-3,4,9,10-perylene-bis(dicarboximide)	Made to order	advanced perylene for materials science and electronics	516492-12-9	.....
N,N'-bis(1-methyl-1-hexyl)-3,4,9,10-perylene-bis(dicarboximide)	Made to order	advanced perylene for materials science and electronics	1312926-51-4	.....
N,N'-bis(2,2-diphenyl-1-ethyl)-3,4,9,10-perylene-bis(dicarboximide)	Made to order	advanced perylene for materials science and electronics	Not registered	.....
N,N'-bis(1,2-diphenyl-1-ethyl)-3,4,9,10-perylene-bis(dicarboximide)	Made to order	advanced perylene for materials science and electronics	Not registered	.....

N,N'-bis 2-(4-t-butylphenyl)-1ethyl)-3,4,9,10-perylene-bis(dicarboximide)	Made to order	advanced perylene for materials science and electronics	Not registered	.....
N,N'-dimethyl-3,4,9,10-perylene-bis(dicarboximide) CAS number 5521-31-3	Ask	pigment red 179	5521-31-3	.....
N,N'-bis(3,5-dimethylphenyl)-3,4,9,10-perylenebis(dicarboximide) CAS number 4948-15-6	Ask	pigment red 149 CI 71137	4948-15-6	.....

Natural Compounds	Availability	Uses	CAS Number	Units
Biotin pure	Ex stock	**For biotinylation, binds with streptavidin.**	58-85-5	ask
Vanillin synthetic origin	Ex stock	Chemical Intermediate, also may be used for other purposes, but not for food use	121-33-5	1 kg
Caffeine pure synthetic	Ex stock	Precipitates natural phenols and tannins. Can be used in their quantification. Caffeine has natural pesticide properties. Not for food use.	58-08-2	50g - 20kg

Chemical intermediates	Availability	Uses	CAS Number	Units
3,4,9,10-perylene-bisanhydride CAS number 128-69-8	Made to order	Pigment Red 224 Important chemical intermediate and component of security inks also a semi-conductor	128-69-8	.....
meta-Cresol 99% min	Ex stock	Solvent for polymers, antiseptic and pesticide precursor. Precursor for other compounds	108-39-4	10 kg
1,6,7,12-tetrachloro-3,4,9,10-perylene-bisanhydride CAS number 156028-26-1	Made to order	Chemical intermediate	156028-26-1	.....
Biotin pure	In stock	Precursor for biotinylation	58-85-5	100 g
2-ethylhexanol 99.0% min	In stock	Ester feedstock and starting point for lubricant additives. Available in laboratory and drum quantities	104-76-7	1 kg
3-nitrophthalonitrile CAS 51762-67-5	In stock	Phthalocyanine Intermediate	3-nitophthalonitrile CAS 51762-67-5	100g
2-sec-butylphenol 99% min.	In stock	Polymerisation Inhibitor, Stabiliser, Used in herbicides and insecticides. Coumarin and benzofuran intermediate. Available in laboratory and drum quantities	89-72-5	10kg (small quantities available on request)

Deep eutectic solvents	Availability	Uses and References	CAS Number	Units
Regulatory Status		**As there is no intention to form new substances for supply, they are mixtures. Annex V of REACH also allows exemptions for unintentional in-situ reactions.**	.....	.....
		Multicomponent reaction in deep eutectic solvent for synthesis of substituted 1-aminoalkyl-2-naphthols *Research on Chemical Intermediates* volume 43, pages 379–385 (2017) Mahtab Edrisi Najmedin Azizi **Status and advances of deep eutectic solvents for metal separation and recovery** Green Chemistry Issue 5 22 Ziwen Yuan, Hang Liu, Qianhong She, Jesús Esteban **Review on Hydrometallurgical Recovery of Metals with Deep Eutectic Solvents** Sustain. Chem. *2020, 1(3), 238-255* Guillaume Zante Maria Boltoeva **Application of deep eutectic solvents in water treatment processes: A review** Journal of Water Process Engineering Volume 47, June 2022 Chahd Maher Chabib, Jisha Kuttiani Ali, Et Al. **Application of deep eutectic solvents in protein extraction and purification** Front. Chem., 06 September 2022 Sec. Green and Sustainable Chemistry Volume 10 – 202 Hou Bowen, André Delavault Et. Al. **Application of acidic deep eutectic solvents in green extraction of 5-hydroxymethylfurfural** Scientific Reports volume 12, Article number: 13113 (2022) **Sabah Karimi Hemayat Shekaari**		

		Rethinking the Applications of Ionic Liquids and Deep Eutectic Solvents in Innovative Nano-Sorbents Front. Chem., 09 April 2021 Sec. Analytical Chemistry Volume 9 – 2021 Lirong Nie Sara Toufouki Et Al. **Deep eutectic solvents as versatile media for the synthesis of noble metal nanomaterials** **Nanotechnology Reviews** Jae-Seung Lee **The role of deep eutectic solvents and carrageenan in synthesizing biocompatible anisotropic metal nanoparticles** Beilstein J. Nanotechnol. 2021, 12, 924–938. Nabojit Das Akash Koumar Raja Gopal **Raja Gopal Rayavarapu** **Introducing Deep Eutectic Solvents as a Water-Free Dyeing Medium for Poly (1,4-cyclohexane Dimethylene Isosorbide Terephthalate) PICT Nanofibers** Polymers (Basel). 2021 Aug; 13(16): 2594 Hussain N. Hussain S. Et. Al. **Choline chloride-based deep eutectic solvents as effective electrolytes for dye-sensitized solar cells** RSC Advances Issue 35 21 De Nguyen Tuan Van Huynh Et Al. **Performance and mechanism of dye extraction from aqueous solution using synthesized deep eutectic solvents** Colloids and Surfaces A: Physicochemical and Engineering Aspects Volume 539, 20 February 2018, Pages 85-91 Paramjit Kaur, Nikhil Rajani **Deep eutectic solvents for redox biocatalysis** Journal of Biotechnology Volume 293, 10 March 2019, Pages 24-35 Vicente Gotor-Fernández Caroline E. Paul		

1 mole choline chloride: 2 moles urea	Ask	The original Leicester green solvent, replaces conventional metal cleaning solvents and acids, melting point 12 ^{0}C	Mixture	.....
1 mole choline chloride: 2 moles ethylene glycol	Ask	Green solvent used in metal finishing and has many other novel uses including nano-technology	Mixture	.....
1 mole choline chloride: 1 mole malonic acid	Ask	Green solvent, melting point 10 ^{0}C	Mixture	.....
1 mole choline chloride: 2 moles m cresol	Ask	Eutectic mixture with very low melting point (-35 ^{0}C)	Mixture	.....
1 mole choline chloride: 2 moles zinc chloride	Ask	Very useful solvent with wide uses and is a solvent for chemical reactions	Mixture	.....
1 mole choline chloride: 1 mole Mg Cl2. 6 H2O	Ask	Melting Point 16 ^{O}C	Mixture	.....
1 mole tetrabutyl ammonium chloride:2 moles octanoic acid	Ask	Hydrophobic Deep Eutectic Solvent	Mixture	.....
Other Deep Eutectic Solvents	made to order	The above deep eutectic solvents are examples. If you need a different one, ask us. Contact enquiries@renchem.co.uk	Mixture	.....

Surfactants	Availability	Uses	CAS Number	Units
Dioctyl Sulpho Succinate Sodium Salt DOSS	Stock item	DOSS is an excellent surfactant for suspending particles. Used in reverse microencapsulation studies. Not for medical use.	577-11-7	25 kg
PEG 40 Hydrogenated Castor Oil	Ask	HLB 13 Emulsifier for Oils, Solvents and Waxes. We only supply drum quantities	61788-85-0	.....
Solvents	**Availability**	**Uses**	**CAS Number**	**Units**
N-Methyl Pyrrolidone Electronic Grade	Ask	Very strong aprotic solvent, used for cleaning, coatings and other uses, with very low free amine content. May be available in laboratory and drum quantities	872-50-4	.....
Solvent Naphtha 230/290, similar-to Caromax 28. Low naphthalene version available.	Ex stock	Very high boiling point aromatic industrial solvent >1% naphthalene, available in laboratory and drum quantities	EC 926-273-4	25 kg
Solvent Naphtha A150, similar-to Caromax 20	Ex stock	Aromatic Solvent Bpt. > 175 ^{0}C > 1% Naphthalene, > 98% aromatic. Available in laboratory and drum quantities.	EC 919-284-0	25 kg
Solvent Naphtha A180, similar-to Caromax 18	Ex stock	Aromatic Solvent Flash Point > 43 ^{0}C > 1% Naphthalene, Available in laboratory and drum quantities	EC 918-668-5	25 kg
2-ethylhexanol 99,0% min	Ex Stock	Very useful low freezing point, high flash point solvent, available in laboratory and drum quantities. Dielectric Constant at 90 ^{0}C = 4.41 Dipole Moment 1.8D	104-76-7	1kg
MPG Monopropyleneglycol 1,2-Propanediol	Fast	Very useful solvent, generally regarded as safe (GRAS)	57-55-6	25kg
MPG Monopropyleneglycol 1,2-Propanediol	Fast	Very useful solvent generally regarded as safe (GRAS)	57-55-6	100kg

Paper Industry	Availability	Uses	CAS Number	Units
Renaissance Quencher PAS Liquid	stock	Polymeric OBA Quencher that has been used successfully in the Paper Industry for many years. EC 642-924-2	263745-23-9	1000kg IBC, other packages available
Biomaster AT400	Contact Addmaster UK Ltd 01785 225656	Special Silver Biocide Formulation that prevents the spread of infection on medical and food hygiene paper. It is effective against MRSA and SARS COV-2	Formulated Product	
Ultrazol Yellow MG Liquid	Ask	Direct Yellow 147 Lightfastness 3- 4	71838-49-8	1000kg IBC, other packages available
Ultrazol Yellow XG Liquid	Ask	Direct Yellow 157 Lightfastness 3	72705-26-1	1000kg IBC, other packages available
Ultrazol Yellow LG Liquid	Ask	Direct Yellow 137 Lightfastness 2- 3	71838-47-6	1000kg IBC, other packages available
Ultrazol Yellow R Liquid	Ask	Direct Yellow 50 Lightfastness 4-5	3142-47-9	1000kg IBC, other packages available
Ultrazol Yellow GG Liquid	Ask	Direct Yellow 11 Lightfastness 2-3	1325-37-7	1000kg IBC, other packages available
Ultrazol Orange GG Liquid	Ask	Direct Orange 34 Lightfastness 4	12222-37-6	1000kg IBC, other

				packages available
Ultrazol Orange RR Liquid	Ask	Direct Orange 118 Lightfastness 2	60202-34-8	1000kg IBC, other packages available
Ultrazol Red G liquid	Ask	Direct Red 253 Lightfastness 3-4	142985-51-1	1000kg IBC, other packages available
Ultrazol Scarlet 3B Liquid	Ask	Direct Red 239 Lightfastness 2	60202-35-9	1000kg IBC, other packages available
Ultrazol Red 2B Liquid	Ask	Direct Red 254 Lightfastness 3	101380--00-1	1000kg IBC, other packages available
Ultrazol Violet 2B Liquid	Ask	Direct Violet 51 Lightfastness 2-3	5489-77-0	1000kg IBC, other packages available
Ultrazol Blue G Liquid	Ask	Direct Blue 281 Lightfastness 2-3	77907-25-6	1000kg IBC, other packages available
Ultrazol Turquoise Liquid	Ask	Direct Blue 199 Lightfastness 4	12222-04-7	1000kg IBC, other packages available
Pigment Black TK Dispersion	2 weeks	Pigment Black 7, 38% solids black pigment dispersion, 2000cps max. viscosity	1333-86-4	1000kg IBC, other packages available

Pigment Black G7 Dispersion	2 weeks	Pigment Black 7, 45% solids black pigment dispersion, 4,000 cps max. viscosity	1333-86-4	1000kg IBC, other packages available
Pigment Green EP7-T	2 weeks	Pigment Green 7 Dispersion 50% solids <3,000cps max. viscosity	1328-53-6	1000kg IBC, other packages available
Ultrazol Yellow B96 Liquid	2 - 3 weeks	Basic Yellow 96 Liquid	CAS 78181-99-4	1,000kg IBC, other packages available
Ultrazol Red B14 Liquid	2 - 3 weeks	Basic Red 14 Liquid	CAS: 65122-06-2	1,000kg IBC, other packages available
MDF Colouration	**Availability**	**Uses**	**Cas Number**	**Units**
Ultrazol Red 3B Liquid	2-3 weeks	Basic Violet 16, economical Intense red dye for marking flame retardant MDF	6359-45-1	1000kg IBC, other packages available
Ultrazol Red B Liquid	1 – 2 weeks	Basic Violet 10 Traditional intense red dye for marking flame retardant MDF	81-88-9	1000kg IBC, other packages available
Pigment Black TK Dispersion	2 weeks	Pigment Black 7, 38% solids black pigment dispersion, 2000cps max. viscosity	1333-86-4	1000kg IBC, other packages available

Pigment Black G7 Dispersion	2 weeks	Pigment Black 7, 45% solids black pigment dispersion, 4,000 cps max. viscosity	1333-86-4	1000kg IBC, other packages available
Pigment Green EP7-T Dispersion	2 weeks	Pigment Green 7 Dispersion 50% solids <3,000cps max. viscosity	1328-53-6	1000kg IBC, other packages available
Ultrazol MDF Green Liquid	2 weeks	Acid Blue 9, economical green dye for marking MDF. EC 223-339-8	3844-45-9	1000kg IBC, other packages available
Products for Agrochem	**Availability**	**Uses**	**CAS Number**	**Units**
Pigment Green EP7-T Dispersion	2 weeks	Seed colouration	1328-53-6	1000kg IBC, other packages available
Phloroglucinol	Fast	Shoot formation aid in some crops	108-73-6	ask
Ultrazol Green NBC Liquid	Fast,	Acid stable green dye, used in formulations.	Proprietary mixture	10 kg upwards, 25kg price shown
Ultrazol MDF Green Liquid	Fast	Acid stable blue green dye used in formulations.	3844-45-9	10kg upwards