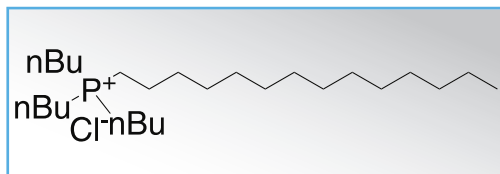


Sold in collaboration with Solvay.

Tributyltetradecyl phosphonium chloride, (ca. 50% in water), CYPHOS® 4345W



Product Details	
Color and Form	Yellow green viscous liq.
Density	0.95
CAS No.	81741-28-8
Molecular Formula	C ₂₆ H ₅₆ ClP
Molecular Weight	435.16 g/mol

CYPHOS® 4345W is a 50% solution of tributyl(tetradecyl) phosphonium chloride in water. **CYPHOS® 4345W** has been exploited for a wide variety of applications and is amenable to chemical modification (anion exchange). With high thermal stability, large liquid range and solubility in a variety of common solvents **CYPHOS® 4345W** can be employed in many different applications. Further features of **CYPHOS® 4345W** include: solubility in water as well as other polar liquids.

Technical Notes:

- CYPHOS® 4345W** has found use in a diverse range of applications. These applications include additives in modified PVC for biomedical grade applications. ¹
- Microwave assisted synthesis of nanostructured materials has also been reported in **CYPHOS® 4345W**. ²
- Furthermore, **CYPHOS® 4345W** has been shown to be effective at high-throughput methods for dissolving lignocellulose and has been explored in modified organoclay systems. ^{3,4}
- Catalysis is a major area of application as well as **CYPHOS® 4345W** has been exploited in cooperative catalysis as well as oxidation chemistry. ^{5,6}

References:

- Chemical*, **2007**, 271, 145-150.
- ACS Applied Materials & Interfaces*, **2014**, 6, 22585-22593.
- Bioresour, Technol*, **2009**, 100, 2580-2587.
- Applied Clay Science*, **2008**, 40, 90-98.
- Green Chemistry*, **2016**, 18, 3775-3788.
- WO Patent 2015166507*, **2015**

Storage and Handling:

Always wear approved safety glasses and protective gloves and clothing when handling chemical substances. Handle product in an efficient fume hood and avoid breathing vapor. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing promptly. Store in a tightly closed container away from sources of heat, spark or flame. Avoid release into the environment. Wash hands thoroughly after handling, do not eat, drink or smoke when using this product. **CYPHOS® 4345W** is stable over long periods of time (12+ months) and will not polymerize. Should not be stored in air or near oxidizing agents. Potential hazardous decomposition products are carbon dioxide, carbon monoxide, oxides of carbon and/or phosphorus and chlorine compounds. Very toxic to aquatic life. This phosphonium salt can cause severe burns and eye irritation.

Handle in accordance with good industrial hygiene and safety practices including avoiding unnecessary exposure to the product and removal of material from skin, eyes and clothing. For additional health, safety and handling information, refer to the product SDS (**CYPHOS® 4345W** is classified as corrosive). Keep containers tightly sealed and store in a dry area >4° C. Rotate stock using the oldest material first. Always refer to MSDS for full description of chemical safety information and information on exposure risks.

Visit www.strem.com for new product information and a searchable catalog.

Strem Chemicals, Inc.
7 Mulliken Way
Newburyport, MA 01950
U.S.A
Tel: 978.499.1600
Fax: 978.465.3104
Email: info@strem.com

Strem Chemicals, Inc.
15 rue de l'Atome
Zone Industrielle
67800 BISCHHEIM France
Tel: (33) 03 88 62 52 60
Fax: (33) 03 88 62 26 81
Email: info.europe@strem.com

Strem Chemicals, Inc.
Postfach 1215
77672 KEHL
Germany
Tel: 0 78 51/ 7 58 79
Email: info.europe@strem.com

Strem Chemicals UK Ltd.
An Independent Distributor of Strem Chemicals Products
Newton Hall, Town Street
Newton, Cambridge
England CB22 7ZE
Tel: 0845 643 7263
Fax: 0845 643 7362
Email: enquiries@strem.co.uk

Visit www.strem.com for new product information and a searchable catalog.

Strem Chemicals, Inc.
7 Mulliken Way
Newburyport, MA 01950
U.S.A
Tel: 978.499.1600
Fax: 978.465.3104
Email: info@strem.com

Strem Chemicals, Inc.
15 rue de l'Atome
Zone Industrielle
67800 BISCHHEIM France
Tel: (33) 03 88 62 52 60
Fax: (33) 03 88 62 26 81
Email: info.europe@strem.com

Strem Chemicals GmbH
Postfach 1215
77672 KEHL
Germany
Tel: 0 78 51/ 7 58 79
Email: info.europe@strem.com

Strem Chemicals UK Ltd.
An Independent Distributor of Strem Chemicals Products
Newton Hall, Town Street
Newton, Cambridge
England CB22 7ZE
Tel: 0845 643 7263
Fax: 0845 643 7362
Email: enquiries@strem.co.uk