ALG Chemicals
Chemistry for Hygiene & Healthy Life

TECHNICAL DATA SHEET

ALGCare-TCS
(Triclosan)

CODE No.	CAS No.	MOLECULAR WEIGHT	MOLECULAR FORMULA	MANUFACTURER
TCS	3380-34-5	289.5409	$C_{12}H_7Cl_3O_2$	ALG CHEMICALS

This organic compound is a white powdered solid with a slight aromatic/phenolic odor. It is a chlorinated aromatic compound which has functional groups representative of both ethers and phenols. Phenols often show anti-bacterial properties. Triclosan is slightly soluble in water, but soluble in ethanol, diethyl ether, and stronger basic solutions such as 1M Sodium Hydroxide

Benefits:

Triclosan protects for hours
Triclosan is mainly used in soaps and toiltries as a contribution to warranted hygiene. Due to the long lasting efficacy of the active substance it can provide invisible protection for many hours.

Keeping hospital infections low
Resistant bacteria from overuse of antibiotics like methicillin can be controlled by Triclosan

Triclosan sticks to teeth and gums
In toothpaste and mouthrinses Triclosan is proven to be the best in class in keeping in check damaging oral bacteria

Arresting odor forming bacteria
Body odors buildup over the day is significantly reduced by arresting the responsible bacteria in arm-pits and on feet through deos and foot sprays.

Anti-inflammatory activity
Triclosan acts against skin inflammation and reduces the irritant effect from aggressive surfactants

Active against hand contact transfer of bacteria
Hand contact to contaminated surfaces is proven to be the main entrance gate of pathogenes into our bodies: Triclosan protects hands longlastingly.

Working on both battlefields

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The bactraionstat Triclosan is unique in fighting both sorts of bacteria, gram-positive and gram-negative. Unhealthy bacteria can be found in both classes.

Even helping against acne

Triclosan works against Propionibacterium acnis, the generator of acne pimples and other pimple bacteria.

CHARACTERISTICS:	Fine whitish, crystalline powder. Melts at about 57°C. Soluble in methanol, in alcohol and in acetone. Slightly soluble in hexane. Practically insoluble in water

SPECIFICATION:	**TEST**	**LIMIT**
	Identification	
	a) IR	The IR absorption spectrum of the sample should be concordant with IR absorption spectrum of Triclosan working standard
	b) GC RT.	The retention time of the major peak in the chromatogram of the assay preparation, should correspond to that in the chromatogram of the standard preparation, as obtained in the assay.
	Water By Karl Fisher	Not More Than (NMT) 0.1%.
	Completeness of solution.	A solution of 1.40g of triclosan in 10ml of acetone is clear.
	Heavy metals.	Not more than 0.002%
	Related Compound	
	a) Any individual impurity.	Not more than 0.1%
	b) Total impurities:	Not more than 0.5%
	Phenolic Impurities by HPLC	
	a) 4-Chlorophenol	Not more than 50 ppm
	b) 2,4 Dichloro Phenol	Not more than 10 ppm
	Neutral impurities by HPLC	
	a) 1,3,7Trichlorodibenzo-p-Dioxin.	Not more than 0.25ppm
	b) 2,8-Dichlorodibenzo-p-Dioxin.	Not more than 0.5ppm
	c) 2,8 - Dichlorodibenzo-furan.	Not more than 0.25ppm
	d) 2,4,8 Trichlorodibenzofuran	Not more than 0.5ppm
	Neutral Impurities by GC-Mass	
	a) 2,3,7,8-tetachlorodibenzop dioxin	Not more than 1.0 ppt
	b) 2,3,7,8-	Not more than 1.0 ppt

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	tetachlorodibenzofuran	
	Assay by GC (on anhydrous basis)	Not less than 97.0% and not more than 103.0% w/w
	Residual solvents by GC-HS	
	a) Hexane	Not more than 250 ppm
	b) .Tetrachlorodibenzofuran	Not more than 100 ppm
	Additional Tests	
	a) Iron	Not more than 10ppm
	b) Residue on ignition	Not more than 0.1%
	c) Odour	Odourless/mild romatic/phenolic/ characteristic

PACKAGING:	25 kg HDPE Drums Other sizes available upon request.

SHELF LIFE	5 years from date of manufacture
STORAGE CONDITIONS	Keep container tightly closed. Keep container in a cool, well-ventilated area

TRANSPORT REGULATIONS:	Classified as hazardous substance according to transport regulations (UN3077 CLASS 9 PG: III)

APPLICATION	The most common applications for Triclosan are bar and liquid soaps, underarm deodorants, toothpastes and mouthwashes, anti-acne and foot-care products, and hand washes for hospitals. Other specialized applications utilize Triclosan in fibers to control odor and in plastics, like cutting boards and conveyor belts for food processing. These applications have to meet strict criteria for performance, and a number of agencies regulate the use of Triclosan in these instances. Usage level : 0.15 %-0.3 % .