

## PRODUCT OVERVIEWS

- **Casamed™ PCMX, PCMX Packaged and PCMX USP are the only chloroxylenol APIs to have received rigorous FDA, USP and GMP accreditations**, giving customers complete confidence in product quality and regulatory compliance.
- **Casamed™ PCMX** is a highly-effective, versatile active ingredient, used commonly in a wide range of antiseptic formulations as well as in solid, and liquid, medicinal soaps globally.
- **Casamed™ PCMX** is manufactured to meet high-quality specifications, including BP or USP monographs, and can be supplied in a variety of standard, or tailor-made, packaging options.
- **Casamed™** and **Casacide™** products are used extensively in a wide range of anti-microbial, disinfectant and detergent applications marketed outside of the European Union. The chloroxylenol grades are not supported, at present, under BPR (EU Regulation 528/2012) and so are not permitted, currently, for use as components of biocidal formulations for marketing within the European Union.
- Component substances of **Casacide™ Mixed Chloroxylenols** (PCMX, OCMX and DCMX) are EU REACH registered by Thomas Swan & Co Ltd.
- The use of PCMX in medicinal products in the EU is exempt from REACH registration: instead the **Casamed™** grades are subject to alternative regulatory bodies such as UK MHRA.
- **Casamed™ PCMX** may also be formulated together with **Casamed™ Odour Mask**, a highly-effective deodoriser for personal care applications.

### 1.a. Casamed™ Chloroxylenols: Typical Physical, Chemical Properties and Other Information

Information:	Grade:		
	CASAMED™		
	PCMX and PCMX Packaged - BP grade	PCMX USP - USP grade	PCMX TECH
Product code(s)	PR0435, PR0100	PR0674, PR6740	PR1200, PR1250
Chemical name, synonyms	para chloro meta xylenol; PCMX; 4-chloro-3,5-dimethyl phenol; 4-chloro-3,5-xyleneol; 4-chloro-meta-xyleneol; chloroxylenol		
CAS number	88-04-0		
Pharmacopoeia	British Pharmacopoeia	US Pharmacopoeia	(not applicable)
GMP Manufacture	Yes	Yes	No
Physical form	crystals or crystalline powder		
Label in accordance with	(EC) No. 1272/2008		
DG Classification	Class 9, UN 3077		
Crystal appearance	white / off-white / cream	white / off-white	white / off-white / cream
Odour	characteristic		
Melting Point	114-116 °C	114-116 °C	114-116 °C
HS Code (UK export)	2908.9900		
REACH Registration No. (PCMX)	01-2120759319-43-0000		
Re-test (shelf-life)	36 months from date of manufacture		

### 1.b. Casamed™ Chloroxylenols: Formulation Advantages versus Alternative Actives

**Casamed™ PCMX** (BP and USP variants) offer formulation cost, handling, foaming and formulation flexibility advantages over quaternary compounds, including:

- The use of anionic surfactants with **Casamed™ PCMX** systems likely lowers total formulation cost;
- The use of anionic surfactants with **Casamed™ PCMX** enhances foaming, particularly in hand dishwashing liquid applications;
- Polymeric or associative thickeners are not needed with **Casamed™ PCMX** formulations;
- The use of 100% active powder **Casamed™ PCMX** is safe to use and easier to store than liquid irritants.

### 1.c. Casamed™ Chloroxylenols: Standard Packaging Information

Casamed™ grades:	Product Type				Standard Packaging Types (1-4)			
	Packaging Types:				Type 1.	Type 2.	Type 3.	Type 4.
	1	2	3	4				
PR0100 (BP)		Y		Y	<b>25 kg UN boxes:</b> 24 packs per pallet = 600 kg nett pallets; 20 pallets max. = 12,000 kg max. per TEU.	<b>650 kg UN FIBCs:</b> 1 pack per pallet; 20 pallets max. = 13,000 kg max. per TEU; 114 cm CP9 heat-treated pallets.	<b>1000 kg UN FIBCs:</b> 1 pack per pallet; 10 pallets max. = 10,000 kg max. per TEU; 120 cm heavy-duty wooden pallets.	<b>1228 kg UN FIBCs:</b> 1 pack per pallet; 10 pallets max. = 12,280 kg max. per TEU; 120 cm heavy-duty wooden pallets.
PR0435 (BP)	Y							
PR0674 (USP)			Y		Shrink-wrapped on 110 cm plastic pallets.  Volume = 1.27 m <sup>3</sup> .	Shrink-wrapped on 114 cm CP9 heat-treated pallets.  Volume = 1.36 m <sup>3</sup> .	Volume = 1.38 m <sup>3</sup> .	Volume = 2.30 m <sup>3</sup> .
PR6740 (USP)	Y							
PR1200 (TECH)	Y							
PR1250 (TECH)		Y						

## 2. Casamed™ Odour Mask: Summary Information

Product	Standard product information		
Casamed™ Odour Mask	Property	Casamed™ Odour Mask	Packaging
	Description	Liquid	Standard packaging is 25 lb nett drums.
	Colour	Colourless to pale yellow	
	Aroma	Floral, aldehydic	Other packaging options could also be made available.
	Refractive Index	1.4575-1.4675 at 22°C	
	Specific Gravity	0.9860-1.0260 at 22°C	
	Flash Point	> 200 °F	
	Typical Usage Levels	Shelf life, Storage	
	1.0 parts Casamed Odour Mask per 8.5 parts Casamed PCMX	12-month shelf life under prescribed storage conditions: store in tightly sealed container in a cool, dry place away from direct sunlight; a storage temperature between 10 - 21 °C; maximum 70% relative humidity.	

## 3.a. Casacide™ Mixed Chloroxylenols: Typical Physical, Chemical Properties and Other Information

Information:	Grade:	CASACIDE			
		296	140	PXR-70	40WS
Product code(s)	PR0296	PR1139	PR1094	PR1143	
Chemical name	Mixed chloroxylenols (OCMX, DCMX, PCMX)	Mixed chloroxylenols (OCMX, DCMX, PCMX) in isopropanol			
Physical form	Solid or viscous liquid	Mobile liquid			
Isopropanol content w/w	0%	47-49%	27-32%	60%	
Label in accordance with	(EC) No. 1272/2008				
DG Classification	Class 9, UN 3082	Class 3, UN 1993	Class 3, UN 1993	Class 3, UN 1993	
Appearance	Brown solid or viscous liquid	Amber-brown liquid	Dark brown liquid	Amber-brown liquid	
Odour	Phenolic				
HS Code (UK export)	2908.9900				
REACH Registration No. (PCMX)	01-2120759319-43-0000				
REACH Registration No. (OCMX)	01-2120764721-53-0000				
REACH Registration No. (DCMX)	01-2120764719-38-0000				
Re-test (shelf-life)	36 months from date of manufacture				

## 3.b. Standard Casacide™ Mixed Chloroxylenols Packaging Information

Product Type	Standard packaging options			
Casacide grades:	<b>Casacide 296</b> 250 kg nett UN poly drums: 4 x drums per pallet, strapped, with a volume of 1.40 m <sup>3</sup> .	<b>Casacide 140</b> 180 kg nett UN steel drums: 4 x drums per pallet, strapped, with a volume of 1.40 m <sup>3</sup> .	<b>Casacide PXR-70</b> 1000 kg nett UN IBCs: Volume = 1.40 m <sup>3</sup> .	<b>Casacide 40WS</b> 180 kg nett UN steel drums: 4 x drums per pallet, strapped, with a volume of 1.40 m <sup>3</sup> .
	20 pallets max per TEU = 20.0 t nett	20 pallets max per TEU = 14.4 t nett	20 UN IBCs max per TEU = 20.0 t nett	20 pallets max per TEU = 14.4 t nett