

**THOR**

MICRO CARE<sup>®</sup>

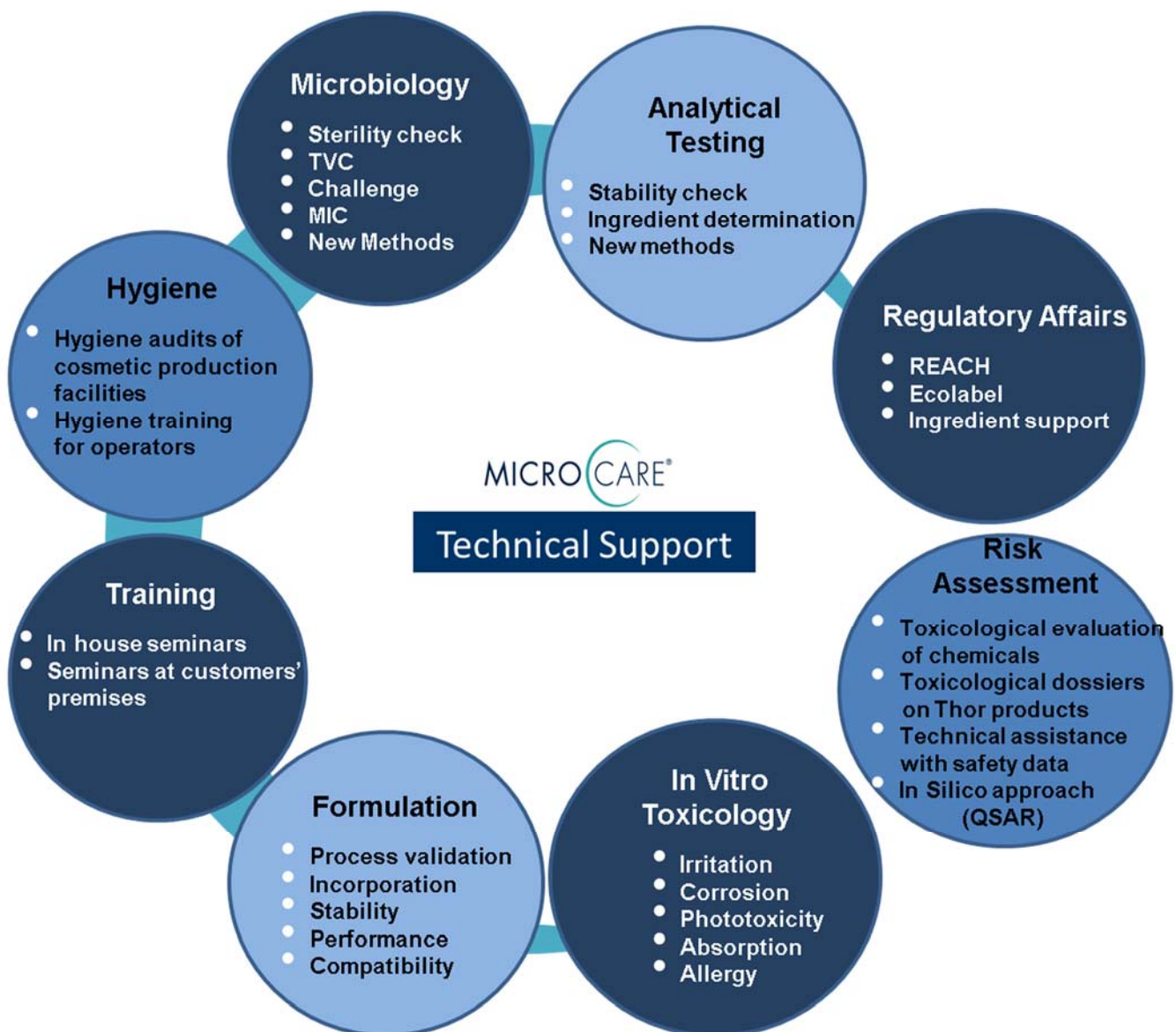
**Personal Care  
Ingredients**



Global manufacture and sale of innovative and effective ingredients for personal care formulations. Based on Thor’s 50 years’ experience in preservative technology, the Microcare® range is being continually developed to meet the requirements of this highly specialised industry.

We manufacture and formulate a variety of high purity Microcare® preservatives to protect both leave on and rinse off formulations, together with a number of Microcare® Emollients which serve to boost the preservative system. Also available is a range of globally approved Microcare® Quat and Microcare® Amide conditioning products for skin and hair care and Microcare® Silicone skin and hair ingredients.

**Technical Support Services available to Thor Personal Care customers.**



**Preservatives** **ECOCERT Compliant**

Microcare® BNA	Benzyl alcohol
Microcare® DB	A blend of dehydroacetic acid and benzyl alcohol
Microcare® DHA	Dehydroacetic acid
Microcare® KS	Potassium sorbate
Microcare® NB	Sodium benzoate
Microcare® NS	Sodium salicylate
Microcare® SB	A liquid blend of two organic acids in water
Microcare® SBB	A liquid blend of benzyl alcohol and two organic acids
Microcare® SBS	A liquid blend of two sodium organic acids in water

**Preservatives** **Bronopol and blends**

Microcare® BR	Bronopol in water/glycol base
Microcare® BRP	Bronopol powder
Microcare® BPI	Liquid blend of bronopol, iodopropynyl butylcarbamate (IPBC) and benzyl alcohol
Microcare® BPM	Liquid blend of bronopol, 2 parabens and phenoxyethanol

**Preservatives** **HCHO donors**

Microcare® DH / DH2	DMDM hydantoin in water
Microcare® DMP	A liquid blend of diazolidinyl urea and 2 parabens
Microcare® IM	Imidazolidinyl urea
Microcare® IMP	Blend of imidazolidinyl urea and parabens

**Preservatives** **Parabens with phenoxyethanol**

Microcare® PM2	A combination of 2 parabens in phenoxyethanol
Microcare® PM3	A combination of 3 parabens in phenoxyethanol
Microcare® PM4	A combination of 4 parabens in phenoxyethanol

Preservatives	Isothiazolinone and blends Rinse off applications only
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Microcare® CB / CBS	Optimised blends of chloromethyl/methylisothiazolinone (CIT/MIT) and benzyl alcohol for low in-use concentrations
Microcare® IT / ITO	A broad spectrum high purity liquid formulation based on chloromethyl/methylisothiazolinone
Microcare® ITL	A broad spectrum, high purity, nitrate free liquid formulation based on chloromethyl/methylisothiazolinone

Preservatives	Methylisothiazolinone and blends
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Microcare® MT	Methylisothiazolinone in water providing broad spectrum bactericidal activity. Ideal for combination with fungicides.
Microcare® MPE	Methylisothiazolinone in phenoxyethanol, providing broad spectrum activity
Microcare® MTB	Aqueous dispersion of methylisothiazolinone and polyaminopropyl biguanide (PHMB)
Microcare® MTC	Water/glycol based dispersion of methylisothiazolinone and chlorphenesin
Microcare® MTD2	Water/glycol dispersion of methylisothiazolinone and decylene glycol
Microcare® MTI & MTO	Synergistic dispersions of methylisothiazolinone and iodopropynyl butylcarbamate (IPBC) for enhanced fungicidal performance
Microcare® MTP	Dispersion of methylisothiazolinone and two parabens
Microcare® SI	A synergistic blend of methylisothiazolinone and benzisothiazolinone with enhanced properties

Preservatives	Cationic
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Microcare® CHD	A cationic aqueous solution of chlorhexidine digluconate
Microcare® HDI	Hexamidine diisethionate, a cationic hydrodispersible powder preservative
Microcare® MBG	A cationic broad spectrum aqueous formulation based on polyaminopropyl biguanide (PHMB)
Microcare® QT	An aqueous quaternary ammonium formulation of benzalkonium chloride (min 50%)

**Preservatives** **Parabens (powders)**

Microcare® MHB	Methyl paraben
Microcare® EHB	Ethyl paraben
Microcare® OHB	Propyl paraben
Microcare® BHB	Butyl paraben
Microcare® SMP	Sodium methyl paraben
Microcare® SPP	Sodium propyl paraben

**Preservatives** **Phenoxyethanol and blends**

Microcare® BDP	Liquid blend of phenoxyethanol and organic acids for gentle preservation
Microcare® PE	Phenoxyethanol
Microcare® PEHG	A liquid blend of ethylhexyl glycerine in phenoxyethanol
Microcare® PHC	A liquid blend of chlorphenesin in phenoxyethanol
Microcare® PHCD	A liquid blend of decylene glycol and chlorphenesin in phenoxyethanol
Microcare® PHCH	A liquid blend of 1,2 Hexanediol and chlorphenesin in phenoxyethanol
Microcare® PHG	A liquid blend of caprylyl glycol in phenoxyethanol
Microcare® PHD / PHD2	A liquid blend of decylene glycol in phenoxyethanol
Microcare® PHDG / PHDG2	Liquid blends of both decylene and caprylyl glycol in phenoxyethanol
Microcare® PHI / PHI10	A liquid blend of phenoxyethanol and iodopropynyl butylcarbamate (IPBC) for enhanced fungicide activity
Microcare® PPD	A synergistic powder blend specifically for powder formulations

**Preservatives** **Others**

Microcare® ZP	Zinc pyrithione (48%) in water as anti-dandruff agent
Microcare® CPB	Blend of benzyl alcohol and chlorphenesin
Microcare® CPH(P)	Chlorphenesin
Microcare® DCBZ	A synergistic blend of benzoic acid and boosters
Microcare® IP5 / IP20	Liquid versions of iodopropynyl butylcarbamate (IPBC)
Microcare® NBC	A liquid blend of sodium benzoate and chlorphenesin
Microcare® NBCG	A blend based on sodium benzoate with a broad spectrum of activity for the control of bacteria and moulds
Microcare® BDAB	A liquid blend of two organic acids in phenylpropanol and benzyl alcohol
Microcare® BDB	A blend of benzyl alcohol and two organic acids

Silicones

Microcare® Silicone M8100	Caprylyl Methicone used in skin care, decorative cosmetics and hair care applications
Microcare® Silicone M1600	Cetyl Dimethicone used in skin care, decorative cosmetics and hair care applications
Microcare® Silicone W1800 (INCI : Stearyl dimethicone)	An alkyl modified organosiloxane that melts on contact with skin and provides greater spreadability, a non sticky feel and moisturising benefits
Microcare® Silicone W2024	C20-24 Alkyl Dimethicone, a non-ionic poly-functional silicone wax for decorative cosmetics, as well as skin and sun care applications
Microcare® Silicone W3045	C30-45 Alkyl Dimethicone, a non-ionic poly-functional silicone wax for decorative cosmetics as well as skin and hair care, solid fragrances and toiletries
Microcare® Silicone C1024	Bis-Methoxy PEG-10 Dimethyl, MEA/HDI/Bis-PEG-10 Dimethicone emulsion for use “as is” or with other cationic surfactants to improve combing efficiency <b>THOR innovation</b>
Microcare® Silicone C1235	Synergistic blend of Amodimethicone and cetrimonium chloride derivatives for extra conditioning properties
Microcare® Silicone E1200	PEG-12 Dimethicone designed for O/W and S/W emulsions
Microcare® Silicone E1016 / E9016	Cetyl PEG/PPG-10/1 Dimethicone, a non-ionic emulsifying agent widely compatible with W/O and W/S emulsions
Microcare® Silicone Q1720	Silicone Quaternium-17 for conditioners and wipe applications <b>THOR innovation</b>
Microcare® Silicone PTM	Phenyl functionalised silicone fluid to improve gloss and shine for skin care, hair care, decorative cosmetics
Microcare® Silicone Q17PTM	A clear micro-emulsion of Silicone Quaternium-17 and Phenyl trimethicone
Microcare® Silicone Q17PGM	A quaternary modified organosiloxane dispersion specially formulated for wet wipe applications
Microcare® Silicone DML1520	Blend of low viscosity Dimethicone, to enhance lightness in skin care, decorative cosmetics and hair care applications
Microcare® Silicone G3070	Blend of high viscosity Dimethiconol in a low viscosity Dimethicone fluid for hair care preparations
Microcare® Silicone DM2	A volatile linear polydimethylsiloxane fluid with a low viscosity and a low molecular weight (Dimethicone 2 cps)
Microcare® Silicone DM5	A linear polydimethylsiloxane fluid with a low viscosity and a low molecular weight (Dimethicone 5 cps)
Microcare® Silicone DM350	A linear polydimethylsiloxane fluid with low molecular weight (Dimethicone 350 cps)



Emollients		Preservative Boosters
Microcare® Emollient PTG	Pentylene glycol	
Microcare® Emollient HXD	1,2-Hexanediol	
Microcare® Emollient CAG	A liquid blend of caprylyl glycol in glycol	
Microcare® Emollient CLG	Caprylyl glycol	
Microcare® Emollient CPG	A liquid blend of caprylyl glycol and pentylene glycol	
Microcare® Emollient DCG	Decylene glycol	
Microcare® Emollient DCP	A liquid blend of pentylene glycol, caprylyl glycol and decylene glycol	
Microcare® Emollient EHG	Ethylhexyl glycerine	
Microcare® Emollient WCLG	A liquid version of caprylyl glycol	
Microcare® Emollient APDG	A liquid blend of decylene and caprylyl glycol in phenylpropanol	
Microcare® Emollient AEDG	A liquid blend of decylene and caprylyl glycol in phenethyl alcohol	
Microcare® Emollient AEHX	A blend which improves the antimicrobial efficacy of traditional preservative systems thereby reducing susceptibility of cosmetic products to microorganisms	
Microcare® Emollient APHX	A blend which improves the antimicrobial efficacy of traditional preservative systems thereby reducing susceptibility of cosmetic products to microorganisms	
Conditioning Agents		
Microcare® Quat CTC25 / CTC30	Cetrimonium chloride (25% or 30% respectively) for hair rinses and conditioners	
Microcare® Quat CTC50	Cetrimonium chloride (50% active) for hair rinses and conditioners	
Microcare® Quat BHQ Also suitable for leave on applications	Behentrimonium chloride (80% active) for hair rinses and conditioners supplied as pellets	
Microcare® Quat EQG Also suitable for leave on applications <b>GREEN Version</b>	Vegetable derived quaternary ester (dipalmitoylethyl dimonium chloride 70% in green solvent), easily biodegradable, for hair rinses and conditioners, supplied as pellets	<b>THOR innovation</b>
Microcare® Quat SBG <b>GREEN Version</b>	Non flammable stearalkonium chloride (85% active) in green solvent for hair rinses and conditioners, supplied as pellets	<b>THOR innovation</b>
Microcare® Quat BHG Also suitable for leave on applications <b>GREEN Version</b>	Behentrimonium chloride (50% active) in green solvent for hair rinses and conditioners, supplied as pellets	<b>THOR innovation</b>
Amides		
Microcare® Amide STAM	An active fatty amino-functional tertiary amine, suitable for both hair conditioners and 2-in-1 shampoos	
Microcare® Amide BHAM	An active fatty amino-functional tertiary amine, suitable for both hair conditioners and 2-in-1 shampoos	
Microcare® Amide RIAM	An active fatty amino-functional tertiary amine conditioning and anti-static agent suitable for transparent hair conditioners/rinses	



## Microcare® Quats

	Product Name	MONOALKYL QUAT				ESTER QUAT	AMIDO QUAT	
		CTC	SBG	BHG	BHQ	EQG	STAM	BHAM
		Cationic / Cationic-like	X	X	X	X	X	
Compatible with anionics						X	X	
Hydrophilic	X	X	X	X	X	X	X	
Lipophilic								
Green version	X	X	X		X			
Cold Process	X							
Anti frizz		X	X	X	X	X	X	
Colour retention (hair)			X	X		X	X	
Combing (hair)	X	X	X	X	X	X	X	
Comfort (skin)			X		X			
Conditioning (skin)			X		X			
Curl retention / definition		X	X	X				
Emolliency			X	X	X			
Emulsifying	X	X	X	X	X	X	X	
Ethnic hair		X	X	X				
Fly away reduction			X	X	X	X	X	
Moisturising			X	X	X			
Richness		X	X	X			X	
Sand resistance					X			
Self tanning booster	X		X	X				
Smoothness		X	X	X	X			
Thickening	X	X	X	X	X			
Transparency	X							

## Alcohols

Microcare® Alcohol PEA	Phenethyl alcohol
Microcare® Alcohol PPA	Phenylpropanol
Microcare® Alcohol PEP	A liquid blend of phenethyl alcohol and phenylpropanol boosted by two acids

## INCI Names

Category	INCI Name
<b>Alcohols</b>	Phenethyl alcohol Phenylpropanol
<b>Amides</b>	Behenamidopropyl dimethylamine Stearamidopropyl dimethylamine
<b>Emollients</b>	1,2-Hexanediol Caprylyl Glycol Decylene Glycol Ethylhexylglycerin Pentylene Glycol
<b>Quats</b>	Behentrimonium Chloride Cetearrimonium Chloride Cetrimonium Chloride Dipalmitoylethylidimonium chloride Stearalkonium Chloride
<b>Silicones</b>	Amodimethicone Bis-Methoxy PEG-10 Dimethyl MEA/HDI/Bis-PEG-10 Dimethicone Copolymer C20-24 Alkyl Dimethicone C30-45 Alkyl Dimethicone Caprylyl Methicone Cetyl Dimethicone Cetyl PEG/PPG-10/1 Dimethicone Dimethicone Dimethiconol PEG-12 Dimethicone Phenyl Trimethicone Silicone Quaternium-17

Category	INCI Name
<b>Preservatives</b>	2-Bromo- 2-nitropropane -1,3-diol (Bronopol) Benzalkonium Chloride Benzisothiazolinone Benzoic Acid Benzyl Alcohol Butylparaben Chlorhexidine digluconate Chlorphenesin Dehydroacetic acid Diazolidinyl urea DMDM Hydantoin Ethylparaben Hexamidine diisethionate Imidazolidinyl urea Iodopropynyl butylcarbamate (IPBC) Isobutylparaben Methylchloroisothiazolinone & Methylisothiazolinone (CIT/MIT) Methylisothiazolinone (MIT) Methylparaben Phenoxyethanol Polyaminopropyl biguanide Potassium sorbate Propylparaben Sodium benzoate Sodium methylparaben Sodium propylparaben Sodium salicylate Sorbic acid Zinc pyrithione

Area of Impact		System Employed		Method		Regulatory Acceptance / Endorsement		
		Non GLP	GLP	Non GLP	GLP	EU	US	International
SKIN	Corrosion	Commercial models		OECD TG 431		via OECD TG 431	OECD TG 431 accepted 2004	via OECD (members), Brasil, Canada and Japan acceptance
	Irritation	VitroDerm * Mature (adult)	Commercial models	THOR long exposure method	OECD TG 439 (manufacturers protocol)	via OECD TG 439	OECD TG 439 accepted 2010	via OECD (members), Brasil, Canada and Japan acceptance
VitroDerm * Immature (baby)								
EYE	Corrosion	Bovine cornea	Commercial models	OECD TG 437	Internal Protocols**	via OECD TG 437 (BCOP)	BCOP accepted 2008	via OECD (members), Brasil, Canada and Japan acceptance
	Irritation							
ACUTE ORAL TOXICITY		Mouse fibroblast (3T3)		ICCVAM 2001 workshop report; ICCVAM 2006 peer review and report; recommended in 2008 / OECD GD 129		OECD GD 129	ICCVAM 2001 workshop report ICCVAM 2006 peer review and report Recommended in 2008	via OECD (members), Brasil, Canada and Japan acceptance
PHOTOTOXICITY		Mouse fibroblast (3T3)		OECD TG 432		via OECD TG 432 (3T3 NRU)	OECD TG 432 accepted 2004	via OECD (members), Brasil, Canada and Japan acceptance
SENSITISATION		Internal implementation & validation process pending (DPRA and MUSST methods)				Pending		

\* Human reconstituted epidermis VitroDerm (VD) model

\*\* Internal Protocols for raw material and final products

BCOP: Bovine Corneal Opacity and Permeability

MUSST: Myeloid U937 Skin Sensitisation Test

DPRA: Direct Peptide Reactivity Assay

OECD TG: Organization for Economic Co-operation and Development Test Guidelines

GLP: Good Laboratory Practice

OECD GD: Organization for Economic Co-operation and Development Guidance Document

ICCVAM: Interagency Coordinating Committee on the Validation of Alternative Methods



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