

# **Handbook of Cosmetic and Personal Care Additives**

**Second Edition**  
**Volume 1**

Compiled by  
**Michael and Irene Ash**



**Synapse Information Resources, Inc.**

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# Preface

**Handbook of Cosmetic and Personal Care Additives, Second Edition** provides information on more than 28,000 trade names, chemicals, materials, and synonyms and serves as an essential guide to product managers, formulation scientists, quality controllers, cosmetic chemists as well as any professional associated with the cosmetic and personal care industry.

The cosmetic and personal care industry encompasses a diversity of products including: body and face lotions, creams, and salves; deodorants and antiperspirants; sunscreens and tanning aids; makeup preparations (face powder, lipstick, mascara, eye shadow, eye liner); nail products; hair preparations (shampoos, conditioners, coloring rinses and dyes, waving solutions); bath preparations and soaps; shaving preparations; oral care products; and fragrances.

Choosing optimal ingredients in the overall process of marketing and developing new and improved products is a monumental task. This reference coalesces the necessary research process into a single source and expedites material selection for the user by cross referencing trade name products by chemical composition, function, CAS number and EINECS number.

This reference contains the following sections:

## Part I

**Trade Name Reference** contains alphabetical entries of trade name cosmetic/personal care additives with extensive profiles of each product listed. The product descriptions include: its manufacturer, chemical description/composition, CAS, and EINECS identifying numbers, general properties, applications and functions, toxicology, compliance and regulatory information as provided by the manufacturer and other sources

## Part II

**Chemical Component Cross-Reference** contains approximately 7500 cosmetic and personal care chemicals/materials that are either contained in the trade name products profiled in Part I or are generic chemicals used as cosmetic/

personal care additive ingredients. Each entry includes, wherever possible, its synonyms, CAS number, EINECS/ELINCS number, FEMA number, UN/DOT number, molecular and empirical formulas, chemical properties, functions and applications, toxicology, precautions, use levels, regulatory information, and manufacturers and distributors of the chemical. All chemical/material synonyms are cross-referenced back to the main entry. The chemical monograph entries also contain a listing of the trade name products that are either equivalent to the chemical entry or contain this chemical as one of its ingredients.

## Part III

**Functional/Application Index** is a powerful tool for locating the trade names and chemicals based on their function and application. By searching for key functional words related to cosmetic/personal care additives such as anticaking agents, binders, colorants, disintegrants, emulsifiers, encapsulants, fillers, fragrances, pearlescents, in specific application areas such as makeup, mouthwash, skin lotions, shampoos, sunscreens, etc., the user is directed to the trade names and/or chemicals that have that specific functional/application attribute.

## Part IV

**Manufacturers Directory** contains detailed contact information for the more than 3100 worldwide manufacturers and their branches for the trade name products and chemical components that are referenced in this handbook. Wherever possible, telephone, telefax, toll-free numbers, e-mail and internet addresses, and complete mailing addresses are included for each manufacturer.

## Appendixes

**CAS Number Index** contains CAS number entries followed by a listing of their trade name product and chemical equivalents in alphabetical order. The chemical name is in boldfaced type.

**EINECS/ELINCS Number Index** contains EINECS/ELINCS number entries followed by a listing of their trade name product and generic chemical equivalents in alphabetical order. The

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chemical name is in boldfaced type.

**FEMA Number Index** orders chemicals contained in this reference by these numbers (assigned by the Flavor and Extract Manufacturers Association).

**Glossary** contains definitions of terminology associated with the cosmetics and personal care industry.

We are confident that those involved in the cosmetic/personal care industry will find this compendium an important addition to their reference library. We are also pleased to provide this reference as an electronic product.

This reference is the culmination of many years of research, investigation of product sources acquired through personal contacts and correspondences with major chemical manufacturers worldwide, as well as toxicological databases, chemical reference books, trade magazines and journals. We would especially like to express our gratitude to Roberta Dakan for her contribution to standardizing the entry format and managing the trade name and chemical database that represents the basis of this and future chemical references. Her untiring efforts have been instrumental in the production of this source book.

M. & I. Ash

**NOTE:**

The information contained in this reference is accurate to the best of our knowledge; however, no liability will be assumed by the publisher or the authors for the correctness or comprehensiveness of such information. The determination of the suitability of these products for prospective use is the responsibility of the user. It is herewith recommended that those who plan to use any of the products referenced seek the manufacturers instructions for the handling of that chemical.



# Abbreviations

ABS	acrylonitrile-butadiene-styrene	Btu	British thermal unit
abs.	absolute	B.U.	Brabender units (viscosity)
absorp.	absorption	BVC	British Veterinary Codex
ACGIH	American Conference of Governmental Industrial Hygienists	BVO	brominated vegetable oil
ACN	acrylonitrile	byprod.	byproduct(s)
act.	active	C	degrees Centigrade
ADI	acceptable daily intake (FAO/WHO)	CAA	Clean Air Act
ADR	adverse drug reactions	CAB	cellulose acetate butyrate
adsorp.	adsorption	calcd.	calculated
agric.	agricultural	cap.	capillary
agrichem.	agrichemical(s)	CAP	Color Additive Petition (U.S.)
agrochem.	agrochemical	CAS	Chemical Abstracts Service
a.i.	active ingredient	CC	closed cup
alc.	alcohol	cc	cubic centimeter(s)
Am., Amer.	American	CCFAC	Codex Committee on Food Additives and Contaminants
amts.	amounts	CCl <sub>4</sub>	carbon tetrachloride
anhyd.	anhydrous	CD	completely denatured
ANSI	American National Standards Institute	CDA	completely denatured alcohol
APHA	American Public Health Association	CE	Council of Europe
API	Active Pharmaceutical Ingredients	CEL	corporate exposure limit
applic(s).	application(s)	CERCLA	Comprehensive Environmental Response, Compensation, & Liability Act (U.S.)
aq.	aqueous	CFC	chlorofluorocarbon
ASA	acrylic-styrene-acrylonitrile	CFN	Council on Food & Nutrition (Am. Medical Assoc.)
ASBC	Am. Society of Brewing Chemists	CFR	Code of Federal Regulations (U.S.)
ASTM	American Society for Testing and Materials	cGMP	current good manufacturing practice (U.S. FDA)
ATH	alumina trihydrate	ch.	Chapter
atm	atmosphere	char.	characteristic, characterized
at.wt.	atomic weight	chel.	chelation
autoignit.	autoignition	chem(s).	chemical(s)
aux.	auxiliary	CI	Color Index
avail.	available	CIIR	chlorobutyl rubber
avg.	average	CIR	Cosmetic Ingredient Review
a.w.	atomic weight	cks	centistoke(s)
BATF	Bureau of Alcohol, Tobacco, and Firearms (U.S.)	cl	clear
BDG	butyl diglycol	CL	ceiling concentration
BfArM	Bundesinstitut für Arzneimittel und Medizinprodukte (Federal Institute for Drugs and Medical Devices, Germany)	cm	centimeter(s)
BGA	German Federal Health Office (obsolete)	cm <sup>3</sup>	cubic centimeter(s)
BgVV	Bundesinstitut für Gesundheitlichen Verbraucherschutz und Veterinärmedizin (Federal Institute for Consumer Health Protection and Veterinary Medicine) (Germany)	CMC	carboxymethylcellulose
BHA	butylated hydroxyanisole	CMC	critical Micelle concentration
BHT	butylated hydroxytoluene	c.m.p.	capillary melting point
biochem.	biochemical	CNS	central nervous system
biodeg.	biodegradable	CO	carbon monoxide
bldg.	building	COC	Cleveland Open Cup
blk.	black	COD	chemical oxygen demand
BMC	bulk molding compound	coeff.	coefficient
BOD	biochemical oxygen demand	COF	coefficient of friction
BP	British Pharmacopeia	compat.	compatible
b.p.	boiling point	compd(s).	compound(s)
BR	butadiene rubbers, polybutadienes	compr.	compression
B&R	Ball & Ring	conc(s).	concentrated, concentration
br., brn.	brown	conduct.	Conductive, conductivity
brnsh.	brownish	const.	constant
BS	British Standards	contg.	containing
B/S	butadiene/styrene	cosolv.	cosolvent
BSI	British Standards Institute	CP	Canadian Pharmacopeia
BSS	British Standard Sieve	cp	centipoise(s)
		CPE	chlorinated polyethylene
		cps	centipoise(s)
		CPVC	chlorinated polyvinyl chloride
		CR	chloroprene rubber, polychloroprene

cryst.	crystalline, crystallization	esp.	especially
cs	centistoke(s)	EU	European Union
cSt	centistoke(s)	Eur.Ph.	European Pharmacopeia
CTFA	Cosmetic, Toiletry and Fragrance Association	EVA	ethylene vinyl acetate
ctks	centistoke(s)	exc.	excellent
CWA	Clean Water Act	F	degrees Fahrenheit
cwt	hundred weight	FA	fatty acid
DAB	Deutsche. Arzneibuch	FAC	Food Advisory Committee
DAC	Deutscher Arzneimittel Codex (German Pharmacopoeia Codex)	FAO	Food and Agriculture Organization (United Nations)
dc	direct current	FAP	Food Additive Petition (U.S.)
D&C	Drugs & Cosmetics	FCC	Food Chemicals Codex
DE	dextrose equivalent	FDA	Food and Drug Administration (U.S.)
DEA	diethanolamide, diethanolamine	FD&C	Foods, Drugs, and Cosmetics
dec.	decomposes	FDD	Food and Drug Directorate
decomp.	decomposition	FEMA	Flavor and Extract Manufacturers' Association (U.S.)
DEG	diethylene glycol	FEP	fluorinated ethylene propylene
deliq.	deliquescent	FFA	free fatty acid
dens.	density	FFDCA	Federal Food, Drug, and Cosmetic Act
deriv(s).	derivative(s)	FG	food grade
descrip.	description	FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act (U.S. EPA)
dg	decigram(s)	FKM	fluoroelastomer
DI	deionized	fl	fluid
diam.	diameter	flamm.	flammable, flammability
dielec.	dielectric	flex.	flexural
dil.	dilute	FNB	Food and Nutrition Board
DIN	Deutsches Institut fuer Normung (German Standards Organization)	f.p.	freezing point
disp.	dispersible, dispersion	FPC	fish-protein concentrate
dissip.	dissipation	FR	flame retardant; Federal Register
dist.	distilled	FR-ABS	flame retardant ABS
distort.	distortion	FRP	fiberglass-reinforced plastics
distrib.	distributor	F-T	Fischer-Tropsch
dk.	dark	ft	foot, feet
DMF	dimethyl formamide	f.w.	formula weight
DMF	Drug Master Files	G	giga
DMSO	dimethyl sulfoxide	g	gram(s)
D.O.	dissolved oxygen	gal	gallon(s)
DOC	dissolved organic carbon	g/d	gram/dyne
DOM	dissolved organic matter	GFRP	glass fiber-reinforced plastic
DOP	dioctyl phthalate	G-H	Gardner-Holdt
DOT	Department of Transportation (U.S.)	GI	gastrointestinal
DPG	diphenyl guanidine, dipropylene glycol	glac.	glacial
DSB	dry solids basis	GLP	good laboratory practice
DSI	Canadian Provisional Domestic Substance list	GLY	glycine
DTUL	deflection temperature under load	GMP	good manufacturing practice; guanosine monophosphate
DVB	divinylbenzene	gpd	gallons per day
DW	distilled water, deionized water	gpm	gallons per minute
DWV	drainage, waste and vent	gpt	gallons per ton
eb, EB	electron beam	gr.	gravity
EC	European Community	gran.	granules, granular
EC50	environmental concentration, 50%	GRAS	generally regarded as safe
EDTA	ethylenediamine tetraacetic acid	grn.	green
EE	epoxy equivalent	GRP	glass-reinforced plastics, glass-reinforced polyester
EEC	European Economic Community	GVS	Gardner varnish scale (color)
EED	environmental endocrine disrupter	h	hour(s)
EEW	epoxide equivalent weight	HAF	high abrasion furnace carbon black
e.g.	for example	HALS	hindered amine light stabilizer
EINECS	European Inventory of Existing Commercial Chemical Substances	HAP's	hazardous air pollutants
elec.	electrical	HB	horizontal burning
ELINCS	European List of Notified Chemical Substances	HC	hydrocarbon
elong.	elongation	HCFC	hydrochlorofluorocarbon
EMI	electromagnetic interference	HCl	hydrochloride, hydrochloric acid
EMS	electromagnetic shielding	HDPE	high-density polyethylene
ENB	5-ethylidene-2-norbornene	HDT	heat distortion (deflection) temp.
EO	ethylene oxide	HFC	hydrofluorocarbon
EP	European Pharmacopoeia	HFCS	high fructose corn syrup
EP	extreme pressure	Hg	mercury
EPA	Environmental Protection Agency (U.S.)	HIPS	high-impact polystyrene
EPDM	ethylene-propylene-diene rubber, ethylene-propylene terpolymer	HLB	hydrophilic lipophilic balance
EPR	ethylene-propylene rubber	HMIS	Hazardous Material Identification System
EPS	expandable polystyrene	HPLC	high performance liquid chromatography
equip.	equipment	hr	hour(s)
equiv.	equivalent	HTST	high temperature short-time pasteurization
ESCR	environmental stress crack resistance	HVP	hydrolyzed vegetable protein
ESD	electrostatic discharge	hyd.	hydroxyl
ESO	epoxidized soybean oil	hydrog.	hydrogenated
ESP	electrostatic protection	Hz	hertz
		IARC	International Agency for Research on Cancer (United Nations)
		i.b.p.	initial boiling point



IDLH	immediately dangerous to life and health	MID	Meat Inspection Division (USDA)
I&I	industrial and institutional	MIL	Military Specifications
IIR	isobutylene-isoprene rubber	mil	1/1000th inch
IM	intramuscular	min	minute(s)
immisc.	immiscible	min.	mineral
IMP	inosine monophosphate	min.	minimum
in.	inch(es)	MIPA	monoisopropanolamine, monoisopropanolamide
Inc.	Incorporated	misc.	miscible, miscellaneous
inc.	increases, increased	MITI	Japanese Inventory of Chemical Substances (list)
INCI	International Nomenclature Cosmetic Ingredient	mixt(s).	mixture(s)
incl.	including	ml	milliliter(s)
incompat.	incompatible	MLD	minimum lethal dose
incorp.	Incorporated, incorporation	mm	millimeter(s)
indent.	indentation	MMW-HDPE	medium molecular weight high density polyethylene
ing.	ingestion	mN	millinewton(s)
ingred(s).	ingredient(s)	mo, mos	month(s)
inh.	inhalation	mod.	moderately
inj.	injection	mod.	modulus
inorg.	inorganic	monocl.	monoclinic
INS	International Numbering System for Food Additives	m.p.	melting point
insol.	insoluble	mPa-s	millipascal-second(s)
Int'l.	International	mppcf	million particles per cubic foot
IOFI	International Organization of the Flavor Industry	MRL	maximum residual limits
IP	intrapertoneal	MSDS	Material Safety Data Sheet
IPA	isopropyl alcohol	MSG	monosodium glutamate
IPM	isopropyl myristate	MT	medium thermal
IPP	isopropyl palmitate	mus	mouse
IR	isoprene rubber (synthetic), polyisoprene	m.w.	molecular weight
irreg.	irregular	N	normal
IU	International Unit	nat.	natural
IV	intravenous	NB	nonbreaking
J	joule	N/B	nitrile-butadiene
JCIC	Japanese Cosmetic Ingredients Codex	NBR	nitrile rubber, nitrile-butadiene rubber
JCID	Japanese Cosmetic Ingredients Dictionary	NC	nitrocellulose
JECFA	Joint Expert Committee on Food Additives	NCI	National Cancer Institute
JP	Japanese Pharmacopoeia	need.	needles
JSCI	Japanese Standard of Cosmetic Ingredients	neg.	negative
JSFA	Japan Standards for Food Additives	neut.	neutral, neutralized
k	kilo	NF	National Formulary
KB	Kauri-Butanol	NFPA	National Fire Protection Association
kg	kilogram(s)	ng	nanogram
KTPP	potassium triphosphate	NIOSH	National Institute for Occupational Safety and Health (U.S.)
KU	Krebs units	nm	nanometer
l	liter(s)	no.	number
lb	pound(s)	N <sub>2</sub> O	nitrous oxide
LC50	lethal concentration 50%	NOEL	no observed effect level
LCLo	lethal concentration low	NOI	not otherwise indexed (U.S. DOT)
LD0	lethal dose 0%	nonalc.	nonalcoholic
LD50	lethal dose 50%	nonaq.	nonaqueous
LDLo	lowest published lethal dose	nonbiodeg.	nonbiodegradable
LDPE	low-density polyethylene	nonflamm.	nonflammable
LED	light-emitting diode	nonyel.	nonyellowing
lel	lower explosive level	N.O.S.	not otherwise specified (transport regulations)
lg	large	NO <sub>x</sub>	nitrogen oxides
liq.	liquid	NR	natural rubber, isoprene rubber (natural)
LLDPE	linear low-density polyethylene	NSF	National Sanitation Foundation, National Standards Foundation
LOEL	lowest observed effect level	NTP	National Toxicology Program (U.S.)
lt.	light	NV	nonvolatiles
Ltd.	Limited	o-	ortho
LVP	low vapor pressure	OBPA	oxybisphenoxarsine
M	mega	OC	open cup
M	mole	ODC	ozone-depleting compound
m	milli	ODP	ozone-depletion potential
m	meter(s)	OEL	occupational exposure limit
m-	meta	OEM	original equipment manufacturer
manuf.	manufacturer	OMS	odorless mineral spirits
max.	maximum	org.	organic
mbar	millibar	OSHA	Occupational Safety and Health Administration (U.S.)
MCF	methyl chloroform	OTC	over-the-counter
MCT	medium chain triglycerides	o/w	oil-in-water
MD	machine direction, mold direction	oz	ounce
MEA	monoethanolamine, monoethanolamide	p-	para
mech.	mechanical	Pa	Pascal
med.	medium	PBT	polybutylene terephthalate
MEK	methyl ethyl ketone	pbw	parts by weight
mfg.	manufacture	PC	polycarbonate
mg	milligram(s)	PCB	polychlorinated biphenyl
MIBK	methyl isobutyl ketone	pcf	pounds per cubic foot
microcryst.	microcrystalline	PCP	Pest Control Product Act, 1972 (Canada)
microgran.	microgranules, microgranular		

PCTFE	polychlorotrifluoroethylene	RDA	recommended daily allowances
PE	polyethylene	rdsh.	reddish
PEEK	polyetheretherketone	rec.	recommended
PEG	polyethylene glycol	redsh.	reddish
PEK	polyetherketone	ref.	refractive
PEL	permissible exposure level	reg.	registry
perc	perchloroethylene	regs.	regulations
percut.	percutaneous	REL	recommended exposure limit
PES	polyether sulfone	rep.	represents
PET	polyethylene terephthalate	resist.	resistance, resistant, resistivity
petrol.	petroleum	resp.	respectively
PFPE	perfluoropolyether	RFI	radio frequency interference
PG	propylene glycol	r.h.	relative humidity
pH	hydrogen-ion concentration	rhomb.	rhombic
Ph.	Pharmacopoeia	RIM	reaction injection molded/molding
pharm.	pharmaceutical	RO	reverse osmosis
Ph.Eur.	European Pharmacopoeia	rpm	revolutions per minute
phr	parts per hundred of rubber or resin	RQ	reportable quantity
PIB	polyisobutylene	R.T.	room temperature
PIN	product identification number	RTECS	Registry of Toxic Effects of Chemical Substances (U.S.)
PIR	polyisocyanurate	RTM	resin transfer molding
Pk	peak concentration	RTV	room temperature vulcanizing
pkg.	packaging	s	second(s)
PM, P-M	Pensky-Martens	s-	secondary
PMCC	Pensky-Martens closed cup	SADT	self accelerating decomposition temp.
PMMA	polymethyl methacrylate	SAN	styrene-acrylonitrile
PMOC	Pensky-Martens open cup	sapon.	saponification
PO	propylene oxide	SARA	Superfund Amendments & Reauthorization Act (U.S.)
POC	particulate organic carbon	sat.	saturated
POE	polyoxyethylene, polyoxyethylated	S/B	styrene/butadiene
polyunsat.	polyunsaturated	SBR	styrene/butadiene rubber
PoM	prescription-only medicine	SBS	styrene-butadiene-styrene
POM	polyoxymethylene	SD	specialty denatured
POP	polyoxypropylene, polyoxypropylated	SDA	specialty denatured alcohol
POP's	persistent organic pollutants	SE	self-emulsifying
powd.	powder	SEBS	styrene-ethylene/butylene-styrene
PP	polypropylene	sec.	secondary
ppb	parts per billion	semicryst.	semicrystalline
PPE	polyphenylene ether	semiliq.	semiliquid
PPG	polypropylene glycol	semisyn.	semisynthetic
pph	parts per hundred (percent)	sl.	slight, slightly
ppm	parts per million	sm.	small
PPO	polyphenylene oxide	SMA	styrene maleic anhydride
PPS	polyphenylene sulfide	SMC	sheet molding compound
ppt	parts per trillion	SMG	succinylated monoglycerides
pract.	practically	SNAP	Significant New Alternative Policy (U.S. EPA)
prep(s).	preparation(s)	soften.	softening
prod.	product(s), production	sol.	soluble, solubility
props.	properties	solid.	solidification
PS	polystyrene	sol'n.	solution
ps	poise	solv(s).	solvent(s)
psi	pounds per square inch	sp.	specific
psia	pounds per square inch absolute	spec.	specification, specialty
psig	pounds per square inch gauge	SPF	sun protection factor
pt.	point	spp.	non-specified species
Pt-Co	platinum-cobalt	SS	stainless steel
PTFE	polytetrafluoroethylene	SSU	Saybolt Universal Seconds
PTMEG	polytetramethylene ether glycol	std.	standard
PU	polyurethane	STEL	short term exposure limit
PUF	polyurethane foam	Stod.	Stoddard solvent
PUR	polyurethane	STP	standard temperature and pressure
PVA	polyvinyl alcohol	str.	strength
PVAc	polyvinyl acetate	subcut.	subcutaneous
PVAL	polyvinyl alcohol	subl.	sublimes
PVB	polyvinyl butyral	surf.	surface
PVC	polyvinyl chloride	SUS	Saybolt Universal Seconds
PVC-P	plasticized polyvinyl chloride	susp.	suspension
PVC-U	unplasticized polyvinyl chloride	syn.	synthetic
PVDC, PVdC	polyvinylidene chloride	t	tertiary
PVDF	polyvinylidene fluoride	TAPPI	Technical Association of the Pulp & Paper Industry
PVM	polyvinyl methyl ether	TBHQ	tert-butyl hydroquinone
PVM/MA	polyvinyl methyl ether/maleic anhydride	TCC	Tag closed cup
PVP	polyvinylpyrrolidone	TCLo	toxic concentration low
qt	quart	TDI	toluene diisocyanate
quat.	quaternary	TDLo	toxic dose low
R&B	Ring & Ball	TDS	total dissolved solids
rbt	rabbit	TEA	triethanolamine, triethanolamide
RCRA	Resource Conservation and Recovery Act (U.S. EPA 40CFR §261)	tech.	technical
R&D	research and development	temp.	temperature
		tens.	tensile, tension

tert	tertiary	VdC, VDC	vinylidene chloride
THF	tetrahydrofuran	veg.	vegetable
thru	through	visc.	viscous, viscosity
TIPA	triisopropanolamine	VM&P	Varnish Makers and Painters
TKPP	tetrapotassium pyrophosphate	VOC	volatile organic compounds
TLV	Threshold Limit Value	vol.	volume
TLV-CL	Threshold Limit Value/ceiling limit	v/v	volume by volume
TLV-STEL	Threshold Limit Value/short term exposure limit	WFC	World Food Council
TLV-TWA	Threshold Limit Value/time weighted average	wh.	white
TMC	thick molding compound	WHMIS	Workplace Hazardous Materials Information System (Canada)
TOC	Tag open cup, total organic carbon	WHO	World Health Organization (United Nations)
TPE	thermoplastic elastomer	wks	weeks
TPU	thermoplastic polyurethane	w/o	water-in-oil
TRI	Toxic Release Inventory	wt.	weight
TSCA	Toxic Substances Control Act	w/v	weight by volume
tsp	teaspoon	w/w	weight by weight
TSS	total suspended solids	XLPE	crosslinked polyethylene
TWA	time weighted average	X-PE	crosslinked polyethylene
TWC	time weighted concentration	yel.	yellow
typ.	typical	ylsh.	yellowish
uel	upper explosive limits	yr	year
UF	urea formaldehyde	#	number
UHF	ultra high frequency	%	percent
UHMW	ultra high molecular weight	±	plus or minus
UHMWPE	ultra high molecular weight polyethylene	<	less than
UHT	ultra high temperature	>	greater than
UL	Underwriter's Laboratory	≤	less than or equal to
UN No.	United Nations Substance Identification Number (for transport purposes)	≥	greater than or equal to
unsat.	unsaturated	@	at
UPVC	unplasticized polyvinyl chloride	α	alpha
USDA	U.S. Department of Agriculture	β	beta
USFA	United States Food Additives	δ, Δ	delta
USP	United States Pharmacopeia	ε	epsilon
uv, UV	ultraviolet	γ	gamma
V	volt	ω	omega
VA	vinyl acetate	μ	micron, micrometer
VAE	vinyl acetate ethylene	μg	microgram
VC	vinyl chloride	≈	approximately equal to

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**Part I**  
**Trade Name Reference**





# A

## 10646 [Ducey Chem.]

*Chem. Descrip.:* Silicone copolymer

*Uses:* Cosmetic grade avail.

## A-625 [SPI Polyols]

*Chem. Descrip.:* Sorbitol sol'n.

CAS 50-70-4; EINECS/ELINCS 200-061-5

*Uses:* Bodying agent, bulking agent, conditioner, gloss aid, humectant, plasticizer, shelf life extender, suspending agent, texturizer in cosmetic creams/lotions, hair care prods.; flexibilizer, gloss aid, humectant, plasticizer, shelf life extender, warping/shrinking preventer in adhesives, glues; antistat, binder, chelating agent, flexibilizer, humectant, plasticizer, softener in paper; antistat, chelating agent, humectant in textiles

*Features:* Noncrystallizing

## A-642 [SPI Polyols]

*Chem. Descrip.:* Hexitol sol'n.

CAS 45007-61-2

*Uses:* Bodying agent, bulking agent, conditioner, gloss aid, humectant, plasticizer, shelf life extender, softener in cosmetics, hair care prods.; antistat, binder, chelating agent, flexibilizer, humectant, plasticizer, shelf life extender, softener, warping/shrinking preventer in paper; antistat, chelating agent, humectant in textiles

*Features:* Noncrystallizing

## AA USP [CasChem]

*Chem. Descrip.:* Castor oil

CAS 8001-79-4; EINECS/ELINCS 232-293-8

*Uses:* Emollient for cosmetics and pharmaceuticals; lubricant for food processing; lubricant, release aid, protective coatings for vitamins, tableting

*Regulatory:* FDA approval

*Properties:* Sol. in alcohols, esters, ethers, ketone, and aromatic solvs.; visc. 7.3 stokes; acid no. 2; iodine no. (Wijs) 86; sapon. no. 180

## AB@ [ANGUS]

*Chem. Descrip.:* 2-Amino-1-butanol

CAS 96-20-8; EINECS/ELINCS 202-488-2

*Uses:* Pigment dispersant; neutralizing/emulsifying amine; corrosion inhibitor; acid-salt catalyst; pH buffer; chemical and pharmaceutical intermediate; solubilizer; raw material in polymer synthesis; formaldehyde scavenger; in coatings, emulsions

*Properties:* APHA 100 color; water-misc.; m.w. 89.1; dens. 7.86 lb/gal; m.p. -2 C; b.p. 178 C; flash pt. (TCC) 193 F; pH 11.1 (0.1M aq.); 99% conc.

*Toxicology:* LD50 (oral, mouse) 2.5 g/kg, (IP, mouse) 0.48 g/kg; severe eye irritant; causes eye burns and skin irritation

*Precaution:* Combustible; keep away from heat and flame; corrosive to copper, brass, and aluminum

## Abex@ LIV/30 [Rhodia HPCII]

*Chem. Descrip.:* Ammonium alkylaryl ether sulfate

*Uses:* Emulsifier for emulsion polymerization of acrylic, styrene-acrylic, vinyl acetate; detergent, emulsifier, foam stabilizer, wetting agent in household and industrial detergents, shampoos, bubble baths

*Regulatory:* BGA XIV compliance

*Properties:* Liq.; 30% conc.; anionic

## Abietate de Glycerol [Laboratoires Prod'Hyg]

*Chem. Descrip.:* Glyceryl abietate

CAS 1337-89-9

*Uses:* Emollient in cosmetics

## Abil@ 350 [Goldschmidt; Goldschmidt AG]

*Chem. Descrip.:* Dimethicone

CAS 9006-65-9

*Uses:* Emollient, moisture barrier for skin care/protection prods.; fixing agent for perfume and act. substances

*Features:* Nonsticky; eliminates whitening effect from o/w emulsions

*Regulatory:* JSCI registered

*Properties:* Liq.; insol. in water, disp. in vegetable oil and paraffin oil

## Abil@ AV 20 [Goldschmidt; Goldschmidt AG]

*Chem. Descrip.:* Phenyl trimethicone

CAS 2116-84-9; EINECS/ELINCS 218-320-6

*Uses:* Emollient, conditioner, film-former for skin and hair care, sunscreen, tanning creams/lotions, aftershave, aerosol preps., pharmaceuticals

*Features:* Forms easy spreading film on skin

*Regulatory:* JSCI registered

*Properties:* Colorless liq.; sol. in veg. and min. oils; insol. in water; sp.gr. 0.97-1.078; 100% act.; nonionic

## Abil@ B 8832 [Goldschmidt; Goldschmidt AG]

*Chem. Descrip.:* Dimethicone copolyol

*Uses:* Emollient, foaming agent for skin cleansers; rheology control agent aiding gel str. in water-in-silicone emulsions; emulsifier for silicone oils

*Regulatory:* JCIC registered

*Properties:* Liq.

## Abil@ B 8842 [Goldschmidt]

*Chem. Descrip.:* Dimethicone copolyol

*Uses:* Surfactant, wetting agent, lubricant for soaps, shampoos, shower gels, creams, lotions, aerosols, pharmaceuticals; refatting agent; foaming agent; compatibilizer, gloss aid in shampoos

*Properties:* Nonionic

## Abil@ B 8843 [Goldschmidt; Goldschmidt AG]

*Chem. Descrip.:* Dimethicone copolyol

*Uses:* Surfactant, conditioner for personal care prods., pharmaceuticals; emollient for hair/skin care prods., shampoos, shower gels, aerosol shaving lather, deodorants, antiperspirants, creams/lotions, perfumes and colognes; plasticizer for hair setting polymers and hair fixatives

*Features:* Improves skinfeel; stable, creamy foam

*Regulatory:* JCIC registered

*Properties:* Pale liq.; water-sol.; disp. in min. and veg. oils; sp.gr. 1.070; 100% conc.; nonionic

## Abil@ B 8851 [Goldschmidt; Goldschmidt AG]

*Chem. Descrip.:* Dimethicone copolyol

*Uses:* Surfactant, conditioner for personal care prods.; emollient for hair/skin care prods., aerosol shaving lather, deodorants, antiperspirants, creams/lotions, perfumes and colognes; lubricant in shaving foams

*Features:* Improves wet combability; pleasant feel on wet hair

*Regulatory:* JCIC registered

*Properties:* Pale yel. liq.; water-sol.; disp. in veg. and min. oils; sp.gr. 1.050; 100% conc.; nonionic

## Abil@ B 8852 [Goldschmidt; Goldschmidt AG]

*Chem. Descrip.:* Dimethicone copolyol

*Uses:* Surfactant, conditioner, refatting agent for personal care prods., pharmaceuticals; emollient for hair/skin care prods., aerosol shaving

lather, deodorants, antiperspirants, creams/lotions, perfumes and colognes

*Features:* Lipophilic

*Regulatory:* JCIC registered

*Properties:* Pale yel. liq.; disp. in water, veg. and min. oils; sp.gr. 1.011; 100% conc.; nonionic

**Abil® B 8863** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Dimethicone copolyol

*Uses:* Surfactant, wetting agent, lubricant, conditioner, refatting agent, antistat for toiletries, soaps, shampoos, shower gels, creams, lotions, aerosols, pharmaceuticals; gloss aid in shampoos; fragrance retention aid in alcoholic cosmetics such as aftershaves

*Features:* Improves wet/dry comb props.; contributes to compatibility in shampoos

*Regulatory:* JCIC registered

*Properties:* Amber liq.; sol. in water; disp. in veg. and min. oils; 100% conc.; nonionic

**Abil® B 8873** [Goldschmidt]

*Chem. Descip.:* Dimethicone copolyol

*Uses:* Surfactant, wetting agent, lubricant for soaps, shampoos, shower gels, creams, lotions, aerosols, pharmaceuticals; refatting agent; foaming agent; compatibilizer, gloss aid in shampoos

*Properties:* Nonionic

**Abil® B 9950** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Dimethicone propyl PG-betaine

CAS 102523-96-6

*Uses:* Surfactant, conditioner in hair and skin care prods., shampoos, pharmaceuticals; hair softener

*Features:* Improves manageability

*Properties:* Yel. liq.; sol. with sl. turbidity in water; disp. in veg. and min. oils; sp.gr. 1.078-1.092; 30% conc.; amphoteric

**Abil® B 88183** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Dimethicone copolyol

*Uses:* Surfactant, emollient, foaming agent, lubricant, gloss aid for shampoos, shower gels, hand cleaners, aerosols, antiperspirants, pharmaceuticals; refatting agent for skin prods.; emollient for hydrogels; slip agent in shaving creams

*Features:* Compat. with all common surfactants; improves foam structure

*Regulatory:* JCIC registered

*Properties:* Pale yel. liq.; sol. in water, alcohol, 1,2-propylene glycol; sp.gr. 1.024; visc.  $95 \pm 15 \text{ mm}^2 \text{ s}^{-1}$ ; cloud pt.  $71 \pm 3^\circ \text{C}$  (4% aq.); ref. index 1.375; surf. tens.  $34.5 \text{ mN m}^{-1}$  (1% aq.); 50% act.; nonionic

**Abil® B 88184** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Dimethicone copolyol

*Uses:* Surfactant, emollient for hair/skin care prods., pharmaceuticals; plasticizer for soap and syndet bars; anticracking agent, processing aid for soap bars; gloss aid for hair

*Regulatory:* JCIC registered

*Properties:* Pale yel. liq.; sol. in water; sp.gr. 1.04; 100% conc.; nonionic

**Abil® EM 90** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Cetyl dimethicone copolyol

*Uses:* Surfactant, emollient, conditioner, emulsifier for w/o creams/lotions, roll-ons, skin protective treatments, sun care prods., shampoos, conditioners, pharmaceuticals

*Features:* Rec. for bright wh. cosmetic w/o emulsions with exc. heat and freeze/thaw stability; very broad range of applics.

*Regulatory:* JCIC registered

*Properties:* Liq.; HLB 4-6; 100% conc.; nonionic

**Abil® EM 97** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Dimethicone copolyol and cyclomethicone

*Uses:* Emulsifier for cosmetic water-in-silicone emulsions such as antiperspirant gels and roll-on emulsions, clear gels, hair gels, makeup emulsions

*Features:* Offers reduced stickiness and elegant char.; produces emulsions with exc. heat and freeze/thaw stability; good delivery system for act. ingreds.

*Regulatory:* JCIC registered

*Properties:* Liq.

**Abil® OSW 5** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Cyclopentamethicone and dimethiconol

*Uses:* Hair conditioner for structurally damaged hair (after repeated permanent waving or dyeing)

*Features:* Makes hair easier to comb; exc. film distribution on both dry and wet hair; water resist.

*Regulatory:* JCIC registered

*Properties:* Liq.; low pour pt.

**Abil® OSW 12** [Goldschmidt]

*Chem. Descip.:* Cyclomethicone, dimethiconol, dimethicone

*Uses:* Gloss aid, conditioner for hair care prods.; moisturizer and protectant for skin care creams and lotions, pharmaceuticals

**Abil® S201** [Goldschmidt]

*Chem. Descip.:* Dimethicone/sodium PG-propyldimethicone thiosulfate copolymer

*Uses:* Hair conditioner and setting lotion; gloss aid for shampoos, conditioners, mousses, gels, styling aids; in moisture barriers for skin care; conditioner for pharmaceuticals

*Properties:* Liq.; 50% conc.; anionic

**Abil® WE 09** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Polyglyceryl-4 isostearate, cetyl dimethicone copolyol, hexyl laurate

*Uses:* Emulsifier for highly stable w/o creams/lotions, skin care treatment emulsions, sun protection preps., pharmaceuticals

*Features:* Exc. heat and freeze/thaw stability; high compat. with act. ingreds.

*Properties:* Pale yel. liq.; sol. in veg. and min. oils; insol. in water; sp.gr. 0.89-0.93; HLB 5.0; 100% conc.; nonionic

**Abil® Care 85** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Dimethicone copolyol, caprylic/capric triglycerides

*Uses:* O/w emulsifier for cosmetic o/w sprays, creams, lotions

*Features:* Velvety skinfeel; long-lasting skin smoothing effects; compat. with wide range of cosmetic oils; stable emulsions from pH 5.5-9.0

*Properties:* Liq.

**Abil®-Quat 3272** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Quaternium-80

CAS 134737-05-6

*Uses:* Conditioner, antistat, gloss aid for shampoos and hair rinses; refatting agent for skin cleansers, pharmaceuticals

*Features:* Pleasant skinfeel

*Properties:* Amber clear liq.; sol. in water, alcohol, 1,2-propylene glycol, glycerol; sp.gr. 1.008; visc.  $1000 \pm 200 \text{ mm}^2 \text{ s}^{-1}$ ; flash pt.  $90^\circ \text{C}$ ; ref. index 1.429; pH  $7.2 \pm 1$  (30% aq.); surf. tens.  $44 \pm 2 \text{ g/cm}^2$ ;  $50 \pm 1\%$  act.; cationic

**Abil®-Quat 3474** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Quaternium-80

CAS 134737-05-6

*Uses:* Conditioner, antistat for shampoos and hair rinses

*Features:* Provides a particularly soft feel

*Properties:* Liq.; cationic

**Abil® Soft AF 100** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Aminopropyl PEG/PPG-7/3 dimethicone copolyol

*Uses:* Conditioner, bodying agent, substantivity agent for shampoos, hair rinses

*Features:* Self-emulsifying in aq. systems; strongly substantive to hair and skin proteins

*Properties:* Liq.

**Abil®-Wax 2434** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Stearoxy dimethicone

CAS 68554-53-0

*Uses:* Emollient, spreading agent for hair/skin care emulsions, pigmented cosmetics, deodorant sticks, pharmaceuticals; water barrier for creams and lotions; gloss aid on hair; pigment dispersant

*Features:* Lipophilic; improves applic. and skin care properties of emulsions; protects against aq. media; provides pleasant, nongreasy skinfeel; easy to emulsify

*Use Level:* 1-5%

*Regulatory:* JCIC registered

*Properties:* Pale yel. liq.  $> 40^\circ \text{C}$ , waxy  $< 10^\circ \text{C}$ ; sol. in cyclomethicone, min. oil, IPM, sunflower seed oil; sp.gr. 0.88 (35 C); m.p.  $25^\circ \text{C}$ ; pour pt.  $20-30^\circ \text{C}$ ; flash pt.  $> 100^\circ \text{C}$ ; 100% act.; nonionic

**Abil®-Wax 2440** [Goldschmidt; Goldschmidt AG]

*Chem. Descip.:* Behenoxy dimethicone

*Uses:* Emollient, spreading agent for hair/skin care emulsions, pigmented cosmetics, deodorant sticks, pharmaceuticals; gloss aid on hair; pigment dispersant, solubilizer

**Features:** Lipophilic; improves applic. and skin care props. of emulsions; protects against aq. media; reduces whitening during applic. of creams and lotions; provides pleasant, nongreasy skinfeel

**Use Level:** 1-5%

**Properties:** Pale yel. waxy solid; disp. in min. oil, IPM, sunflower seed oil; sp.gr. 0.90 (50 C); m.p. 35 C; pour pt. 30-35 C; flash pt. > 100 C; 100% act.; nonionic

**Abil®-Wax 9800** [Goldschmidt; Goldschmidt AG]

**Chem. Descr.:** Stearyl dimethicone

CAS 67762-83-8

**Uses:** Spreading agent, penetrant, and emollient for hair/skin care emulsions, pigmented cosmetics, deodorant sticks, pharmaceuticals; color enhancer, gloss aid, spreading agent for pigmented prods.; gloss aid on hair; pigment dispersant

**Features:** Lipophilic; provides pleasant, nongreasy skinfeel; easy to emulsify

**Use Level:** 1-5%

**Properties:** Wh. waxy liq.; sol. in min. oil, IPM, sunflower seed oil; sp.gr. 0.86 (35 C); pour pt. 20 C; flash pt. > 40 C; 100% act.; nonionic

**Abil®-Wax 9801** [Goldschmidt; Goldschmidt AG]

**Chem. Descr.:** Cetyl dimethicone

**Uses:** Emollient for antiperspirants, skin care prods., pharmaceuticals, sunscreens (improves SPF response with org. or physical UV filters); pigment solubilizer; spreading agent

**Features:** Lipophilic

**Use Level:** 1-5%

**Properties:** Pale yel. liq. wax; sol. in cyclomethicone, min. oil, IPM, sunflower seed oil; sp.gr. 0.86; pour pt. 10 C; flash pt. 40 C; 100% act.; nonionic

**Abil®-Wax 9810** [Goldschmidt]

**Chem. Descr.:** C24-28 alkyl methicone

CAS 158061-44-0

**Uses:** High m.w. wax used as thickening agent for min. oils and cosmetic esters; water barrier for night creams and protective lotions; provides gloss and smoothness for lipsticks

**Properties:** Gels min. oil; m.p. 60 C

**Abil®-Wax 9814** [Goldschmidt; Goldschmidt AG]

**Chem. Descr.:** Cetyl dimethicone

**Uses:** Emollient, spreading agent, gloss aid, skin adhesion promoter for decorative cosmetics; emollient, gloss aid for hair/skin care, sunscreens, pigmented prods. such as pressed powds.; emollient in pharmaceuticals; emollient, spreading agent, pigment grinding aid and dispersant in sunscreens and esp. for titanium dioxide (prevents reagglomeration)

**Properties:** Liq.

**Abil®-Wax 9840** [Goldschmidt; Goldschmidt AG]

**Chem. Descr.:** Cetyl dimethicone

**Uses:** Emollient for hair/skin care emulsions, decorative cosmetics, deodorant sticks, and sun protection; gloss aid on hair; SPF booster in sunscreens (based on org. and physical UV filters)

**Features:** Provides pleasant, nongreasy feel and silky gloss on hair

**Properties:** Liq.

**Abiol** [3V/Cosmetics; 3V Italia]

**Chem. Descr.:** Imidazolidinyl urea NF

CAS 39236-46-9; EINECS/ELINCS 254-372-6

**Uses:** Preservative in lotions, creams, hair conditioners, shampoos, deodorants, make-up powdered prods.

**Features:** Effective against gram-negative bacteria and some yeast and fungi; strong act. against deactivating effects of certain emulsifiers and proteins; compat. with proteins, surfactants, perfumes, and dyes; act. over wide pH range

**Use Level:** 0.3%

**Regulatory:** DOT nonregulated; SARA nonreportable

**Properties:** Wh. fine powd.; odorless; up to 50% sol. in water, scarcely sol. in oils; m.w. 406.33; bulk dens. 0.60 g/ml; m.p. > 130 C; pH 6-7.5

**Toxicology:** LD50 (oral, rat) 4000-10,000 mg/kg; (skin, rat) > 4000 mg/kg; nonirritating to skin and eyes; TSCA listed

**Environmental:** Do not discharge into storm drains or waterways

**Precaution:** Combustible; can form explosive dust/air mixt.; do not store or mix with oxidizers; keep away from flames and sparks

**Hazardous Decom. Prods.:** On burning carbon and nitrogen oxides can evolve

**NFPA:** Health 1; Flammability 1; Reactivity 0

**Storage:** Highly hygroscopic; 1 yr max. shelf life @ 20 C in tightly closed container in cool, dry place

**Ablumide CAPO** [Taiwan Surf.]

**Chem. Descr.:** Cocoamidopropyl dimethyl amine oxide

CAS 68155-09-9; EINECS/ELINCS 268-938-5

**Uses:** Surfactant; conditioner and antistat in hair care prods.; emulsifier, foam booster, visc. modifier, and stabilizer

**Properties:** Liq.; 35% act.

**Toxicology:** Low irritation

**Ablumide CDE** [Taiwan Surf.]

**Chem. Descr.:** Cocamide DEA (1:1)

CAS 61791-31-9; EINECS/ELINCS 263-163-9

**Uses:** Foam stabilizer, thickener for shampoos, bubble baths, liq. detergents, toiletries

**Properties:** Clear liq.; water-disp.; 100% solids; nonionic

**Ablumide CDE-G** [Taiwan Surf.]

**Chem. Descr.:** Cocamide DEA

CAS 61791-31-9; EINECS/ELINCS 263-163-9

**Uses:** Foam stabilizer and thickener for personal care prods.

**Features:** Low-cost equivalent to coco superamide; contains glycerin

**Properties:** Clear liq.; 100% solids; nonionic

**Ablumide CKD** [Taiwan Surf.]

**Chem. Descr.:** Narrow cut cocamide DEA

CAS 61791-31-9; EINECS/ELINCS 263-163-9

**Uses:** Foam stabilizer and thickener for shampoos; conditioner

**Properties:** Clear liq.; 100% solids; nonionic

**Ablumide CME** [Taiwan Surf.]

**Chem. Descr.:** Cocamide MEA (1:1)

CAS 68140-00-1; EINECS/ELINCS 268-770-2

**Uses:** Foam builder/stabilizer for anionic systems; thickener for shampoos, bubble baths, liq. detergents, toiletries; rec. for powd. and stick formulations; conditioner

**Properties:** Flakes; 100% solids; nonionic

**Ablumide LDE** [Taiwan Surf.]

**Chem. Descr.:** Lauramide DEA (1:1)

CAS 120-40-1; EINECS/ELINCS 204-393-1

**Uses:** Foam stabilizer, thickener, conditioner for shampoos, bubble baths, liq. detergents, toiletries, hand-laundry detergent

**Properties:** Wh. wax; water-disp.; 100% solids; nonionic

**Ablumide LME** [Taiwan Surf.]

**Chem. Descr.:** Lauramide MEA (1:1)

CAS 142-78-9; EINECS/ELINCS 205-560-1

**Uses:** Foam stabilizer, thickener for shampoos, bubble baths, liq. detergents, toiletries

**Properties:** Solid; 95% conc.; nonionic

**Ablumide LO** [Taiwan Surf.]

**Chem. Descr.:** Lauryl dimethyl amine oxide

CAS 1643-20-5; EINECS/ELINCS 216-700-6

**Uses:** Surfactant; conditioner and antistat in hair care prods.; emulsifier; foam booster; visc. modifier; stabilizer

**Properties:** Liq.; 30% act.

**Toxicology:** Low irritation

**Ablumide SME** [Taiwan Surf.]

**Chem. Descr.:** Stearamide MEA (1:1)

CAS 111-57-9; EINECS/ELINCS 203-883-2

**Uses:** Opacifier, thickener for shampoo, cream rinse, bubble bath

**Properties:** Solid; 90% conc.; nonionic

**Ablumine 18** [Taiwan Surf.]

**Chem. Descr.:** Alkyl (4% C16, 92% C18) benzyl dimethyl quat.

CAS 8001-54-5

**Uses:** Conditioner, softener, antistat for human hair, wool, cotton, other cellulosic fibers

**Properties:** Paste; 25% act.; cationic

**Ablumine 280** [Taiwan Surf.]

**Chem. Descr.:** Stearyl dimethyl benzyl ammonium chloride

CAS 122-19-0; EINECS/ELINCS 204-527-9

**Uses:** Antistat, conditioner for hair care prods.

**Properties:** Water-disp.; cationic

**Ablumine 1618** [Taiwan Surf.]

**Chem. Descr.:** Stearalkonium chloride

CAS 122-19-0; EINECS/ELINCS 204-527-9

**Uses:** Base, softener, antistat for hair conditioners