

# MATERIAL SAFETY DATA SHEET

FOR LATEX EXAMINATION GLOVES MADE OF NATURAL RUBBER  
POWDERED AND POWDER-FREE

## IDENTIFICATION

Product Name	Latex Examination Gloves, Non-sterile, Ambidextrous
Chemical Name	Sulfur cross-linked cis 1,4 Poly-isoprene
Formula	Composite
Molecular Weight	Mixture

## PHYSICAL DATA

Specific Gravity	0.94
Taste	Nil
Appearance	Creamy White (powdered) Light Yellow (powder-free)
Odor	Sweetish (powdered) Faint Chlorine (powder-free)

## INGREDIENTS

Material	%	Hazard
Natural Rubber	96.0	May cause type I hypersensitivity
Sulfur	1.0	May cause type IV hypersensitivity
Zinc Oxide	0.7	May cause type IV hypersensitivity
Accelerators *	0.8	May cause type IV hypersensitivity
Anti-oxidants	0.7	May cause type IV hypersensitivity
Titanium Dioxide	0.8	May cause type IV hypersensitivity
Calcium Carbonate #	Detackifier	May cause type IV hypersensitivity
Sterilisable Corn Starch, USP Grade +	Detackifier	May absorb residual latex protein and cause type I hypersensitivity

\* zinc diethyldithiocarbamate (ZDEC), zinc dibutyldithiocarbamate (ZDBC) and zinc 2-mercaptobenzothiazole (ZMBT)

# removed during chlorination washing cycle + for powdered gloves only

## FIRE AND EXPLOSION HAZARD

Non-combustible at ambient temperatures, combustible when ignited.  
No explosion hazard.

## HEALTH HAZARD INFORMATION

### (This section for powdered gloves)

Irritant contact dermatitis may result from prolonged contact with the product, the causative agents being glove powder and surfactants and inadequate rinsing after use. There are no evidence of any adverse effects from available information of sulfur, zinc oxide and titanium dioxide. However, presence of residual ZDBC, ZDEC, ZMBT and anti-oxidants on the product surface may cause delayed type IV hypersensitivity e.g. allergic contact dermatitis, chemical allergy. Reactions include itching, burning sensations, blistering, reddening and pain. In chronic cases, users may develop dry and thickened skin, cracks, peeling and crusting.

Natural rubber latex contain a small quantity of natural proteins which may cause an immediate type I hypersensitive reactions such as urticaria and anaphylaxis in a small percentage of the population. Type I hypersensitivity is life threatening and affected users must seek immediate emergency treatment and to substitute with alternative low protein or non-latex containing products. Signs of type I hypersensitivity include initial itching, hives, swelling, runny nose, wheezing and breathing difficulty. Other symptoms may involve nausea, abdominal cramps, increased heart palpitation, decreased blood pressure and anaphylactic shock.

### (This section for powder-free gloves)

Irritant contact dermatitis may result from prolonged contact with the product, the causative agents being residual surfactants and certain processing chemicals. There are no evidence of any adverse effects from available information of sulfur, zinc oxide and titanium dioxide. However, presence of residual ZDBC, ZDEC, ZMBT and anti-oxidants on the product surface may cause delayed type IV hypersensitivity e.g. allergic contact dermatitis and chemical allergy. Reactions include itching, burning sensations, blistering, reddening and pain. In chronic cases, users may develop dry and thickened skin, cracks, peeling and crusting.

Natural rubber latex contain a small quantity of natural proteins which may cause an immediate type I hypersensitive reactions such as urticaria and anaphylaxis in a small percentage of the population. However, the process of chlorination to make the gloves powder-free also reduces the extractable protein on the glove surface to below 50 g per gram glove. At such low protein level, sensitization is extremely rare. In any event, a user who cannot tolerate latex gloves is advised to consider alternative non-latex gloves. Type I hypersensitivity is often accompanied by symptoms such as itching, hives, swelling, runny nose, wheezing and breathing difficulty. Other symptoms may involve nausea, abdominal cramps, increased heart palpitation, decreased blood pressure and anaphylactic shock.

### (General Information)

The product is intended as a hand protective device only and not as a toy which can cause suffocation. Keep them away from young children or people incapable of using them properly.

Users are advised against touching sensitive skin areas such as the eye, nose, lips and mouth after donning to minimize skin irritations on certain individuals.

Because of its protective function, the product is unventilated except at the cuff. Users should replace the product frequently, wash and clean their hands prior to donning the product again to reduce skin fatigue and roughening on the areas in frequent contact with the product.

### EMERGENCY PROCEDURE

#### SWALLOWING

Attempt removal of product to clear airway and contact medical service immediately

#### SKIN IRRITATION

Wash with soap and water

#### EYE/NOSE CONTACT

Wash with facial cleanser and water

### STORAGE INFORMATION

The product must be stored in its original packing in a well-ventilated area away from dust, sunlight and excessive heat. It must be kept away from unauthorized personnel, young children and those unfamiliar with its applications.

### DISPOSAL RECOMMENDATION

We recommend that all used products be disposed off in a hygienic manner, either through incineration or buried in authorized landfills.

We also recommend that the used product be disposed off separately from domestic and other non-clinical wastes as they may be carriers of infectious agents.

Prepared by:  
Perusahaan Pelindung Getah (M) Sdn Bhd  
Careplus (M) Sdn Bhd