



SAFE GLOVE CO., LTD.

126 Moo 1, Chalokratt Road, Bangkok, Amphur Muang, Suratthani, Thailand

Tel: (66 77) 286027-8

Fax: (66 77) 286026

e-mail: safeglv@cm1.hinet.net

<http://www.safeglove.net>

Material Safety Data Sheet

Ref. No.: NBRPF 01

Issue Date: Nov. 21, 2013

1. Product: POWDER FREE NITRILE EXAMINATION GLOVE

1.1 Product Feature: Ambidextrous.
 Beaded cuff.
 Textured surface.
 Non-sterile

1.2 Identification Product description on both master case and dispenser box.
Lot no labeled on master case and dispenser box.
Gloves size identified by gloves' palm width (extra-small, small, medium, large, Extra-large).

2. Application characteristics:

No special skill or training is required in using it.
Hold the glove at the bead by one hand, and slip the other hand into glove with thumb to thumb direction.
Recommend using for healthcare personnel.
Worn over both hands as a biological barrier protection.
Not to be use in clean or sterile room.
The gloves may come into surface contact with the patient but no invasive contact except mouth and anus.
Period of contact is short term, generally less than 1 hour.
Recommended for single use only.
The gloves are supplied as non-sterile gloves and are not for sterilizing by user.

3. Primary Chemical Ingredients:

a. Dipping compound:

NBR NANTEX 630	100
Sulfur	0.50
Zinc Oxide (active)	2 to 2.5
BZ or EZ	0.30
Titanium dioxide	2.0
Dispersant EP	0.2
Solid content, %	27
NH4 OH	9.5



SAFE GLOVE CO., LTD.

126 Moo 1, Chalokratt Road, Bangkok, Amphur Muang, Suratthani, Thailand

Tel: (66 77) 286027-8

Fax: (66 77) 286026

e-mail: safeglv@cm1.hinet.net

<http://www.safeglove.net>

b. Coagulant solution:

Calcium nitrate	20
Wetting agent	0.1
Water	79.9
Solid content, %	20

c. Chlorinated

4. Product Physical Properties:

	<u>Before Aging</u>	<u>After Aging</u>
Tensile Strength (min. MPA)	14 Mpa	14 Mpa
Elongation (min. %)	500%	400%

5. Product Conformance

* In compliance with EN455-1, EN455-2, ASTM D3578-00 & ASTM D6319-99

* ISO 9001 + EN ISO 13488 certified

6. Potential Risk:

The glove is made from synthetic carboxylated butadiene acrylonitrile copolymer latex with small amount of sulphur, rubber accelerators, zinc oxide, stabilizer potassium hydroxide, color pigment, white pigment titanium dioxide and dispersion agent bonded inside the glove. These Chemicals are required for enhancing the physical properties of glove. The accelerators and other chemicals used are generally considered as safe materials in the proportion used. Incorrect formulated glove compound only affect the physical properties of glove and has no effect on it's properties as a biological barrier.

The similar glove has been tested for Skin Irritation Study in The rabbit and no irritation was observed. If new user experience any discomfort, discontinue use and consult with a physician.

Experience show that physical properties of glove will be deteriorated if directly expose to sunlight and UV light continuously longer than 72 hours. The experience shows that the glove physical properties do not react much to ambient humidity. Keep the glove away from directly sunlight or UV light and ambient temperature not higher than 40 degree C.

If contact with high percent Nitric Acid, it will cause fire.

Generally the glove will have a shelf life of 3 years of more.

Generally the glove can stand with holding glassware and with temperature more than 80 degree Celsius but not with flammable things.



SAFE GLOVE CO., LTD.

126 Moo 1, Chalokratt Road, Bangkok, Amphur Muang, Suratthani, Thailand

Tel: (66 77) 286027-8

Fax: (66 77) 286026

e-mail: safeglv@cm1.hinet.net

<http://www.safeglove.net>

Generally glove has good resistance against hydrocarbon solvent due to it's synthetic compound. However, the individual hydrocarbon solvent penetration time is required to be tested before application.

Deteriorated glove does not emit harmful substances.

The main ingredient of glove is a non-biodegradable synthetic polymer, has to dispose the used glove according to the local regulation.

In the case of dispose by burning, such as in an incinerator, must burn at a temperature higher than 850 degree Celsius.

7. List of potential hazards:

- 7.1 Long exposure to sunlight (continuously 72 hours) and UV light from fluorescent lamps (continuously more than 30 days) will deteriorate the glove causing it to fail as a biological barrier.
- 7.2 The gloves when reused may transform pathogen from patient to patient.
- 7.3 The gloves if contact 68% Nitric Acid directly it will cause fire.

8. Estimation of risk for each hazard identified in step 7:

- 8.1 The risk of glove deteriorating on long exposure to sunlight or UV light is low as the packaging material protect the gloves during transport an storage. Open package (box) gloves, generally are used up fast and inside building away from sunlight.
- 8.2 The risk of reusing gloves is low as it is used by Healthcare personnel who are generally trained in hygiene. The packaging material (dispenser box) is labeled with either "Disposable" or "Single Use" word.
- 8.3 The risk of glove contacting 68% Nitric Acid is low because Nitric Acid is a dangerous Acid those who contact with this Acid normally know it's characteristic they should know to lower the percent of Acid before contact.

9. Acceptability of risk:

- 9.1 The risk is acceptable for the hazard listed in step 7.1.
- 9.2 The risk is acceptable for the hazard listed in step 7.2.
- 9.3 The risk is acceptable for the hazard listed in step 7.3.



SAFE GLOVE CO., LTD.

126 Moo 1, Chalokratt Road, Bangkok, Amphur Muang, Suratthani, Thailand

Tel: (66 77) 286027-8

Fax: (66 77) 286026

e-mail: safeglv@cm1.hinet.net

<http://www.safeglove.net>

10. Risk Reduction:

Suggest Glove distributor indicate step 7.3 in the inner box.

11. Generation of other hazard in risk reduction:

None

12. Evaluation of all identified hazards:

All identified hazards in step 7 had been evaluated.

13. Adequacy of device safety:

The risks associated with the identified hazards (in step 7) are acceptable, with regards to the intended application and use of the powder-free nitrile examination glove.

All information is offered in good faith, without guarantee or obligation for the accuracy or sufficiency thereof, or the results obtained, and is accepted at user's risk. The uses referred to are for the purpose of illustration only. Users should investigate and establish suitability of such use(s) in every case. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license under valid patents.