# TOMOWELL CO.,LTD

NBR Supply Japan

PART 1

# Company Overview

- About us
- Factory tour
- Core competence

We Supply of raw material and has passed ISO9001, GB-T28001 OHSMS and HSE . There are over 20 kinds of products, including MPG, MC, PC, DMC, NPG, IPA,Triancetin, NBR Latex 310 / 730 etc.

## Factory Tour

Methyl Ethyl Ketone

Maleic Anhydride

Isooctane

Tank Field

## Factory Tour

Butadiene Rubber

Iso-Butene

Production Equipment

Production Equipment

# Factory Tour-Lab

## Core competence

# Global Distribute Market

PART 2

# NBR Latex

- NBR Latex **730 & 830**

Storage :
Store between tempreture +5C and +40C.
Keep container closed when not use.
Protect from freezing and direct exposure to sunlight.
Note:
Guidelines for compounding formulation and curing condition will be provided upon request.

# NBR Latex

## TOMONBR

### Description

NBR latex is made by polymerization of butadiene and acrylonitrile. it can be used for making thin examination glove with good tensile strength and elongation by coagulant dipping process.

### Regural COA

| Component | | Carboxylated NBR | |
|---|---|---|---|
| Solid ( % ) | | 44.3 - 45.3 | |
| pH (25℃) | | 8.0 - 9.0 | |
| Viscosity | | < 100 | |
| Tg (℃) | | ~ -25℃ | |
| Acrylonitrile ( B-AN ) | | Medium High | |
| Compounded Time (hr) | Thickness(mm) | Tensile (Mpa) | Elongation(%) |
| 24 | 0.080 | 23.6 | 705 |
| 48 | 0.078 | 24.5 | 700 |
| 72 | 0.082 | 24.6 | 690 |

Capacity 38,000 MT / Month

# TOMONBR-730

| General Property (Milky White) ASTM | |
|---|---|
| **Component 成分** | **Carboxylated NBR** |
| **Solid ( % ) 固含量** | **44.5±0.5** |
| **pH ( 25℃) pH 值** | **8.0±1.0** |
| **Viscosity ( mPaS )黏度** | **< 100** |
| **Tg (℃)** | **-25.0℃** |
| **Acrylonitrile ( B-AN) 丙烯腈** | **28.5** |

General Property - ASTM

| Compounded Time (hr) 复合时间 | Thickness(mm) 厚度 | Tensile (Mpa) 拉伸强度 | Elongation(%) 伸长 |
|---|---|---|---|
| 24 | 0.080 | 23.6 | 705 |
| 48 | 0.078 | 24.5 | 700 |
| 72 | 0.082 | 24.6 | 690 |

# TOMONBR - 830

General Property (Milky White ) - ASTM

| Component | Carboxylated NBR |
|---|---|
| Solid (%) | 44.5±0.5 |
| pH (25°C) | 8---9 |
| Viscosity (mPaS) | 39-42 |
| Surface Tension( mX/m) | 32-34 |
| Tg （°C） | -26℃ |
| ACX contents （%） | 27-28 |
| Compounding Formulation & Dipping Procedure | |
| **Dipping Compound** | **(phr)** |
| KOII (or NII.OII) | To Adjust pII 9.4-9.8 |
| **Curing Agent** | |
| Sulfur | 1 |
| ZnO | 1.4 |
| ZnDEC | 0.6 |
| $TiO_2$ | 1.5 |
| Dispersant | / |
| Total solids contents (%) | 44.5 |

| Thickness (mm) | 0.09 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| M300 (Mpa) | 8.42 | 9.063 | 8.336 | 8.136 | 8.191 | 8.59 | 8.128 | 8.434 |
| M500 (Mpa) | 21.232 | 23.506 | 22.21 | 21.079 | 20.108 | 21.832 | 21.271 | 21.191 |
| Tb (Mpa) | 29.39 | 31.99 | 25.83 | 28.8 | 26.66 | 33.24 | 31.76 | 26.56 |
| Elongation (%) | 572.9 | 571.8 | 531.5 | 563.6 | 562.9 | 594.4 | 586.4 | 547.4 |

UONE

# Test Report 检测报告

| Report No. 报告编号： | Query Password 查询密码：QW9307 | Date: Nov. 6, 2020 日期：2020 年 11 月 6 日 | Page 1 of 5 页码：1 / 5 |
|---|---|---|---|
| U03308201028018Z | | | |

**Applicant 委托单位：** Tomowell Co.,Ltd.

**Contact information 联络信息：** 165-00231-7-11 EHARA-CHO, NAKANO-KU, TOKYO. JAPAN

**The following sample(s) was (were) submitted and identified by client as:**
**以下测试样品信息由申请者所提供确认：**

| | | |
|---|---|---|
| Sample Name 样品名称 | ： | NITRILE LATEX MATERIAL ( XNBRL)<br>丁腈乳胶 |
| Sample Received Date 样品接收日期 | ： | Oct. 28, 2020<br>2020 年 10 月 28 日 |
| Testing Period 样品检测日期 | ： | From Oct. 28, 2020 to Nov. 6, 2020<br>2020 年 10 月 28 日 ~ 2020 年 11 月 6 日 |
| **Test Request 检测要求** | ： | Please refer to next page(s). 请参见下页 |
| **Test Result(s)检测结果** | ： | Please refer to next page(s). 请参见下页 |

Signed for and on behalf of Shen Zhen UONE Test Co., LTD.
深圳市宇冠检测有限公司授权签字人

| Prepared by 编制人 | Checked by 审核人 | Approved by 签发人 |
|---|---|---|
| Laura Liu 刘烨 | Nora Deng 邓 妍 | Levent Liang 梁恩振 |

SHENZHEN UONE TEST CO.,LTD. TESTING SERVICE

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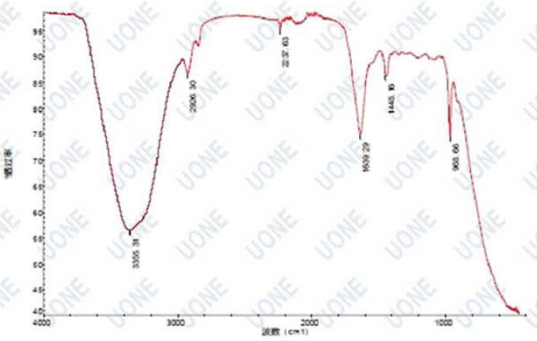
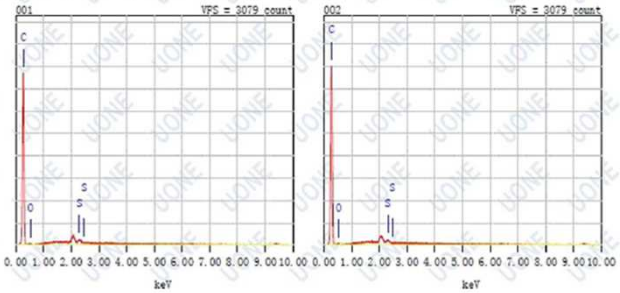
# Test Report 检测报告

| Report No. 报告编号： | Query Password 查询密码：QW9307 | Date: Nov. 6, 2020 日期：2020 年 11 月 6 日 | Page 4 of 5 页码：4 / 5 |
|---|---|---|---|
| U03308201028018Z | | | |

检测谱图 Test Spectrogram
成品红外谱图 FTIR spectra of sample




成品元素分布谱图 EDS spectrum of sample





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# Material Ssfety Data Sheet 2021

## MATERIAL SAFETY DATA SHEET

**MSDS DATE: 1/1/2021**

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME: NBR Latex**
**CHEMICAL FAMILY: Carboxylated Butadiene Acrylonitrile Polymer- water base**
**PRODUCT COLOR: Light white liquid**
**PRODUCT USE: Raw material for industrial use**
**EXPORTER : ZHONGSHAN VICTORY TRADING CO., LTD**
**1st Block,3/FLOOR,15# GUANGLE NORTH ROAD,XIAOLAN TOWN ZHONGSHAN CITY,GUANGDONG,**
**EMERGENCY PHONE/FAX: 86-760-22232848 China**

**SECTION 1 NOTES:**

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

**INGREDIENT:**

| CAS NO.Chemical Name | | % WT |
|---|---|---|
| Proprietary | Carboxylated Butadiene Acrylonitrile Polymer | 40-50 |
| Proprietary | Stabilizer | 01-05 |
| 7664-41-7 | Ammonia | 0.35(Max) |
| 107-13-1 | Acylonitrile | 40ppm (Max) |
| 7732-18-5 | Water | 45-60 |

**Other Information:** The product contains, as generally common for products of this kind, traces of monomers due to the manufacturing process, even after intensive cleaning

**SECTION 2 NOTES:**

**SECTION 3: HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW: No significant immediate hazards for emergency response are known.**
**POTENTIAL HEALTH EFFECTS**

**EYES:** Direct contact with this material may cause eye irritation including tearing and redness. Cornealinjury is unlikely.

**SKIN:** Short single exposure not likely to cause significant skin irritation. Prolonged and repeatedexposure may cause slight skin irritation. Material may stick to skin causing irritation upon removal. Asingle, prolonged exposure is not likely to result in the material being absorbed through skin in harmfulamounts.

**INGESTION:** Single dose oral toxicity is considered to be extremely low. Ingestion (swallowing) mayirritate the mouth, throat, and stomach. No hazards anticipated from swallowing small amountsincidental to normal handling operations.

**INHALATION:** Inhalation of vapor may cause irritation to the respiratory tract (nose, throat, andlungs). With good ventilation, single exposure to vapors is not likely to be hazardous.



MATERIAL SAFETY DATA SHEET

MSDS DATE: 1/1/2021

**Carcinogenic Effects**
This material contains acrylonitrile monomer which is listed by the International Agency for Researchon Cancer (IARC) as a group 2B cancer causing agent (possibly carcinogenic to humans). The National Toxicology Program (NTP) has listed acrylonitrile as a substance that may reasonably be anticipated to be a human carcinogen.

**SECTION 3 NOTES:**

**SECTION 4: FIRST AIDMEASURES**

**Eye Contact**
Immediately flush eyes with large quantities of clean water for at least 15 minutes. Consult a physician.

**Skin Contact**
Wash skin with soap and water. Remove contaminated clothing. Seek medical attention if irritationdevelops. Wash contaminated clothing before reuse.

**Inhalation**
Remove affected individual(s) to fresh air. Seek medical attention if breathing difficulty develops.

**Ingestion**
If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medicalpersonnel.

**Notes to Physician**
No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

**SECTION 4 NOTES:**

**SECTION 5: FIRE-FIGHTING MEASURES**

**Properties**
**Flash Point**: Not applicable.
**Method Used**: Not applicable.
**Autoignition Temperature**: Not applicable.
**Flammable Limits in Air (Lower)**: Not applicable.
**Flammable Limits in Air (Upper)**: Not applicable

**Fire Fighting Extinguishing Media**
To extinguish combustible residues of this product, use water fog, carbon dioxide, dry chemical or foam.

**Fire Fighting Equipment**
Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

**Fire Fighting Instructions**



MATERIAL SAFETY DATA SHEET

MSDS DATE: 1/1/2021

Keep people away. Isolate fire area and deny unnecessary entry. Containers of this material may build up pressure if exposed to heat (fire). Use a water spray to cool fire-exposed containers.

**Fire / Explosion Hazards**
This material will not burn unless it is evaporated to dryness.

**Hazardous Combustion Products**
Under fire conditions, some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to hydrocarbons, carbon monoxide and dense smoke.

**SECTION 5 NOTES:**

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**ACCIDENTAL RELEASE MEASURES:**

**Personal Precautions**
Avoid unnecessary exposure and contact. Barricade the area to restrict access. Persons not wearing protective equipment (see Section 8) should be excluded from the area of the spill until clean-up has been completed.

**Environmental Precautions**
Stop leak at source when it is safe to do so. Dike and contain spill. Prevent spilled material from contaminating soil or entering drains, sewers, streams or other bodies of water.

**Cleanup Procedures**
Avoid dilution with water to minimize the extent of the spill. Recover and recycle spilled latex ifpossible, otherwise, collect with absorbent material and transfer to appropriate containers fordisposal. Water may be used for final cleaning of affected area.

**SECTION 6 NOTES:**

**SECTION 7: HANDLING AND STORAGE**

**HANDLING AND STORAGE:**

**Handling Information**
Practice reasonable care to avoid repeated, prolonged skin contact. An eye wash station and a safety shower should be readily accessible to workers wherever this material is stored or used.

**Storage Information**
Keep from freezing. Store at temperatures between 40° F and 110° F. Material may develop bacteriaodor on long-term storage. No safety problems known.

**SECTION 7 NOTES**

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits Guidelines**
There are no exposure limits assigned to the polymer in this product by the Occupational Safety and Health Administration (OSHA) or American Conference of Governmental Industrial Hygenists(ACGIH).

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) for ammonia is 50 ppm for an 8-hour Time Weighted Average (TWA). The American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV) for ammonia is 25 ppm for an 8-hour Time Weighted Average (TWA) and Short Term Exposure Level of 35 ppm.

The Occupational Safety and Health Administration (OSHA), has established a Permissible Exposure Limit (PEL) of 2 ppm and an action level of 1ppm for acrylonitrile. Refer to 29 CFR 1910.1045 for for information. The American Conference of Governmental Industrial Hygienists (ACGIH) ThresholdLimit Value (TLV) for acrylonitrile is 2 ppm, Time Weighted Average (TWA) for an 8-hour workdayand a 40-hour work week with a skin notation which indicates absorption through the skin could add tothe employees exposure.

**Engineering Controls**
Good general ventilation should be sufficient to control airborne levels of irritating vapors. Localexhaust ventilation may be necessary for some operations.

**Personal Protective Equipment**
EYES: Wear safety glasses with side shields or goggles.

SKIN: Wear clean, long-sleeved, body-covering clothing. Nitrile, neoprene®, or rubber gloves should provide protection against skin contact.

INHALATION: Respiratory protection is not generally required during normal use and handling. A NIOSH/ MSHA approved air purifying respirator with organic vapor cartridge or canister may benecessary under certain circumstances where airborne concentrations are expected to exceed exposurelimits.

**SECTION 8 NOTES:**

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Physical Properties**
**Appearance – (Color, Physical Form, Shape)**: Milky white liquid emulsion.
**Odor**: Slight ammonia odor.
**Physical State**: Liquid.
**pH:** 6.0 - 9.0
**Vapor Pressure:** 17.5 mm Hg @ 68° F (20° C)
**Vapor Density:** 0.624 @ 80° F (26.7° C)
**Boiling Point:** 212° F (100° C)
**Freezing Point:** 32° F (0° C)
**Solubility**: Product as sold is dilutable. Polymer component is insoluble.
**Specific Gravity:** 0.98 - 1.04

**Additional Information**





The physical data listed are for a series of latexes. For specific properties on any given latex, see theproduct bulletin.

## SECTION 10: STABILITY AND REACTIVITY

**Stability**
This material is stable during storage and during its intended use.

**Incompatible Materials/Substances**
Addition of chemicals, such as acids or multivalent metal salts, may cause coagulation.

**Conditions to Avoid**
Avoid freezing temperatures (less than 32° F or 0° C). Product can decompose at elevated temperatures.

**Hazardous Decomposition Products**
Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Thermal decomposition may produce various hydrocarbons and irritating, acrid vapors.

**Hazardous Polymerization**
Hazardous polymerization will not occur.

**SECTION 10 NOTES:**

## SECTION 11: TOXICOLOGICAL INFORMATION

**TOXICOLOGICAL INFORMATION:**

**Acute Toxicity (Humans)**
Refer to Section 3 for available information on potential health effects.

**SKIN**:
- Based on properties of similar polymers, the polymer is not hazardous.
- Acrylonitrile: dermal LD50 (rabbit), 250 mg / kg.

**INGESTION:**
- Based on properties of similar polymers, the polymer is not hazardous.
- Ammonia: oral LD50 (rat), 350 mg / kg.
- Acrylonitrile: oral LD50 (rat) 36 - 85 mg / kg.

**INHALATION:**
- Based on properties of similar polymers, the polymer is not hazardous.
- Ammonia: inhalation LC50 (rat), 2,000 ppm / 4 hr.
- Acrylonitrile: Inhalation LC50 (rat), >1,000 ppm / 1 hr; 500 ppm / 4 hr.

**SECTION 11 NOTES:**

## SECTION 12: ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:**

**Movement & Partitioning**
Latex dispersions will color water a milky white. No bioconcentration of the polymeric component is expected because of its high molecular weight.

**Degradation & Persistence**
The polymeric component is not expected to biodegrade.

**Ecotoxicity**
Based largely or completely on information for similar material(s): Material is practically non-toxic to aquatic organisms on an acute basis (LC50 or EC50 >100 mg/L in the most sensitive species tested).

**SECTION 12 NOTES:**

## SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:**
DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OFWATER. All disposal methods must be in compliance with all Federal and local lawsand regulations. Waste characterizations and compliance with applicable laws are the responsibility
solely of the waste generator.

**FOR UNUSED OR UNCONTAMINATED PRODUCT**, the preferred options include sending to alicensed, permitted recycler, reclaimer, incinerator or other thermal destruction device.

**NOT A RCRA HAZARDOUS WASTE**: When discarded in its purchased form, this material would notbe regulated as a RCRA Hazardous waste under 40 CFR 261.

**SECTION 13 NOTES:**

## SECTION 14: TRANSPORT INFORMATION

**Transport/further information**
Not classified as dangerous in the meaning of transport regulations.

**SECTION 14 NOTES:**

## SECTION 15: REGULATORY INFORMATION

**U.S. Federal Regulations**
Occupational Safety and Health Act (OSHA): This material is classified as a hazardous chemical under the criteria of the US Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910.1200.TSCA Section 8(b) - Inventory Status: All components of this material are listed on or are exempt fromthe US Toxic Substances Control Act (TSCA) inventory.SARA Title III





Section 313 Toxic Chemical List (TCL): To the best of our knowledge, this productcontains no chemical subject to SARA Title III Section 313 supplier notification requirements.SARA Hazard Category: This product has been reviewed according to the EPA "Hazard Categories"promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986(SARA Title III) and is considered, under applicable definitions, to meet the following categories:
- A delayed health hazard.

**Workplace Hazardous Materials Information System (WHMIS) - Canada**
Workplace Hazardous Materials Information System (WHMIS) - Canada: This material is not classifiedas a controlled product under the Canadian Workplace Hazardous Material Information System.Canadian Inventory Status: All components of this material are listed on Canadian DomesticSubstances List (DSL).

**Additional Information**
California Proposition 65: This material contains chemicals known to the State of California to cause cancer.
- 4-Vinylcyclohexene
- Acrylonitrile

**INTERNATIONAL REGULATIONS:**

**SECTION 15 NOTES:**

## SECTION 16: OTHER INFORMATION

**OTHER INFORMATION:**

**PREPARATION INFORMATION:**

**DISCLAIMER:**This information is provided in good faith and is correct to the best knowledge as of the date hereof and is designed to assist our customers; however makes no representation as to its completeness or accuracy. Our products are intended for sale to industrial and commercial customers. We require customers to inspect and test our products before use and to satisfy as to suitability for their specific applications. Any use which customers or third parties make of this information, or any reliance on, or decisions made based upon it, are the responsibility of such customer or third party. We disclaim responsibility for damages, or liability, of any kind resulting from the use of this information. THERE ARE NO WARRANTIES OR REPRESENTATIONS,EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THIS INFORMATION OR TO THE PRODUCT IT DESCRIBES. IN NO EVENT SHALL BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

# Loading & Export


20Ton

1,000KGS


100KGS

# THANK YOU

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