



# Scientific Documentation

W1012, Yellow Wax, Cake, NF

Not appropriate for regulatory submission.  
Please visit [www.spectrumchemical.com](http://www.spectrumchemical.com) or  
contact Tech Services for the most up-to-date  
information contained in this information  
package.

## **Spectrum Chemical Mfg Corp**

769 Jersey Avenue  
New Brunswick, NJ 08901  
Phone 732.214.1300

Ver4.03 1.September.2017



Dear Customer,

Thank you for your interest in Spectrum's quality products and services.

Spectrum has been proudly serving the scientific community for over 45 years. It is our mission to manufacture and distribute fine chemicals and laboratory products with Quality and delivery you can count on every time.

To accomplish our mission, Spectrum utilizes our sourcing leverage and supplier qualification expertise in offering one of the industry's most comprehensive line of fine chemical products under one brand, in packaging configurations designed to meet your research and production requirements. Our product grades include: USP, NF, BP, EP, JP, FCC, ACS, KSA, Reagent grade, as well as DEA controlled substances. We operate facilities in the United States on the East Coast, West Coast, as well as in Shanghai, China in order to provide the best logistical support for our customers.

At Spectrum, Quality is priority number one. Suppliers with the best qualifications are preferred and we employ full-functioning in-house analytical laboratories at each of our facilities. Our facilities and systems are USFDA registered and ISO certified. We frequently host customer audits and cherish opportunities for improvements. Quality is engrained into our culture. Quality is priority number one.

In the following pages, we have designed and prepared documented scientific information to aid you in your initial qualification or your continual use of our products. Please do not hesitate to contact us if further information or the most up-to-date documentation is desired from any of the covered areas.

We appreciate your business and we look forward to hearing from you.

Sincerely,

A handwritten signature in blue ink, appearing to read "Alan Wang", with a large, sweeping loop at the end.

Alan Wang, MSQA, ASQ CQA  
Director of Technical Services  
[techservices@spectrumchemical.com](mailto:techservices@spectrumchemical.com)

**W1012**, Yellow Wax, Cake, NF

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## Specification for Yellow Wax, Cake, NF (W1012)

Item Number	W1012
Item	Yellow Wax, Cake, NF
CAS Number	8012-89-3
Molecular Formula	
Molecular Weight	
MDL Number	
Synonyms	Beeswax

Test	Specification	
	Min	Max
MELTING RANGE	62 - 65 C	
SAPONIFICATION CLOUD TEST	TO PASS TEST	
FATS OR FATTY ACIDS, JAPAN WAX,[nROSIN AND SOAP	TO PASS TEST	
ACID VALUE	17 - 24	
ESTER VALUE	72 - 79	
IDENTIFICATION	TO PASS TEST	
EXPIRATION DATE		
RESIDUAL SOLVENTS	TO PASS TEST	

### *Spectrum Chemical Mfg Corp*

**Corporate Headquarters:**

769 Jersey Ave.  
New Brunswick, NJ 08901  
732.214.1300

**West Coast Facility:**

14422 S. San Pedro St.  
Gardena, CA 90248  
310.516.8000



## SAFETY DATA SHEET

Preparation Date: 8/31/2017

Revision Date: 8/31/2017

Revision Number: G1

### 1. IDENTIFICATION

**Product identifier**

**Product code:** W1012  
**Product Name:** YELLOW WAX, BEES, YELLOW, CAKE, NF

**Other means of identification**

**Synonyms:** Yellow Beeswax

**CAS #:** 8012-89-3  
**RTECS #** Not available  
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** No information available.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000.

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300

**Contact Person:** Martin LaBenz (West Coast)

**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**Label elements**

Not Hazardous

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other hazards**

Not available

**Product code:** W1012

**Product name:** YELLOW WAX,  
BEES, YELLOW, CAKE, NF

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Beeswax	8012-89-3	100

### 4. FIRST AID MEASURES

#### First aid measures

<b>General Advice:</b>	National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.
<b>Skin Contact:</b>	Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.
<b>Eye Contact:</b>	Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.
<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

#### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Health injuries are not known or expected under normal use. Ingestion of large amounts may cause gastrointestinal/digestive irritation or upset. May cause constipation. Ingestion of large quantities may cause intestinal obstruction. May cause nausea and vomiting. Abdominal pain.
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#### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician:</b>	Treat symptomatically.
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#### Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

### 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

<b>Suitable Extinguishing Media:</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray, mist, or foam. The product is not flammable.
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<b>Unsuitable Extinguishing Media:</b>	Do not use a solid (straight) water stream as it may scatter and spread fire.
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#### Specific hazards arising from the chemical

<b>Hazardous Combustion Products:</b>	Carbon Monoxide, Carbon Dioxide.
<b>Specific hazards:</b>	May be combustible at high temperatures.

#### Special Protective Actions for Firefighters

**Specific Methods:**

No information available.

**Special Protective Equipment for Firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures****Personal Precautions:**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Remove all sources of ignition.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**Methods and material for containment and cleaning up****Methods for containment**

Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up**

Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

**7. HANDLING AND STORAGE****Precautions for safe handling****Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials. Keep away from open flames, hot surfaces and sources of ignition.

**Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapors/dust. Use only in well-ventilated areas. Keep away from sources of ignition - no smoking. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities****Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

**Incompatible Materials:**

Oxidizing agents  
Strong acids

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****National occupational exposure limits****United States**

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Beeswax	8012-89-3	None	None	None	None

**Canada****Product code:** W1012**Product name:** YELLOW WAX,  
BEES, YELLOW, CAKE, NF**3 / 11**

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Beeswax	8012-89-3	None	None	None	None

### Australia and Mexico

Components	CAS-No.	Australia	Mexico
Beeswax	8012-89-3	None	None

### Appropriate engineering controls

#### Engineering measures to reduce exposure:

Ensure adequate ventilation, especially in confined areas. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

##### Eye protection:

Goggles or Safety glasses with side-shields

##### Skin and body protection:

Chemical resistant apron  
Gloves  
Long sleeved clothing

##### Respiratory protection:

Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

##### Hygiene measures:

Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

##### Physical state:

Solid

##### Appearance:

Waxy. Cake.

##### Color:

Yellow. Grayish-brown.

##### Odor:

Odorless.

##### Taste

No information available.

##### Formula:

No information available

##### Molecular/Formula weight:

No information available

##### Flammability:

No information available

##### Flashpoint (°C/°F):

204.4-265°C/400-509°F

##### Flash Point Tested according to:

Not available

##### Autoignition Temperature (°C/°F):

No information available

##### Lower Explosion Limit (%):

No information available

##### Upper Explosion Limit (%):

No information available

##### Melting point(range)(°C/°F):

62-65°C/144-149°F

##### Decomposition temperature(°C/°F):

No information available

**Product code:** W1012

**Product name:** YELLOW WAX,  
BEES, YELLOW, CAKE, NF



**Boiling point/range(°C/°F):**

No information available

**Bulk density:**

No information available

**Density (g/cm3):**

0.95-0.96

**Specific gravity:**

0.95-0.96

**pH:**

No information available

**Vapor pressure @ 20°C (kPa):**

No information available

**Evaporation rate:**

No information available

**Vapor density:**

No information available

**VOC content (g/L):**

No information available

**Odor threshold (ppm):**

No information available

**Partition coefficient****(n-octanol/water):**

No information available

**Viscosity:**

No information available

**Miscibility:**

No information available

**Solubility:**

Insoluble in water

Soluble in most organic solvents

**10. STABILITY AND REACTIVITY****Reactivity**

Reactive with oxidizing agents, strong acids, and strong bases.

**Chemical stability****Stability:**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur**Conditions to avoid:**

Heat. Ignition sources. Incompatible materials.

**Incompatible Materials:**

Oxidizing agents

Strong acids

**Hazardous decomposition products:**

Carbon oxides.

**Other Information****Corrosivity:**

No information available

**Special Remarks on Corrosivity:** No information available**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Principal Routes of Exposure:**

Ingestion.

**Acute Toxicity****Component Information**

Beeswax

CAS-No.

8012-89-3

**LD50/oral/rat =** >5000 mg/kg oral LD50 rat**LD50/oral/mouse =** No information available**LD50/dermal/rabbit =** No information available**Product code:** W1012**Product name:** YELLOW WAX,  
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LD50/dermal/rat = No information available  
LC50/inhalation/rat = No information available  
LC50/inhalation/mouse = No information available  
Other LD50 or LC50information = No information available

#### Product Information

LD50/oral/rat =  
VALUE- Acute Tox Oral = > 5000 mg/kg

LD50/oral/mouse =  
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit  
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat  
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat  
VALUE-Vapor = No information available  
VALUE-Gas = No information available  
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse  
VALUE-Vapor = No information available  
VALUE - Gas = No information available  
VALUE - Dust/Mist = No information available

#### Symptoms

<b>Skin Contact:</b>	Not likely to cause skin irritation. Although this material is not known to be an irritant, it may be mildly irritating in sensitive individuals.
<b>Eye Contact:</b>	Not likely to cause eye irritation.
<b>Inhalation</b>	May cause irritation of respiratory tract. It is a waxy solid in the form of a cake and it not expected to cause irritation of the respiratory tract.
<b>Ingestion</b>	Health injuries are not known or expected under normal use. Ingestion of very large quantities may cause gastrointestinal upset or indigestion. May cause constipation. Although it is generally considered nonirritating, ingestion of large amounts may cause gastrointestinal (digestive) tract irritation and may cause intestinal obstruction. Ingestion may cause nausea, vomiting. May cause abdominal pain.
<b>Aspiration hazard</b>	No information available.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Chronic Toxicity</b>	No information available.
<b>Sensitization:</b>	No information available.
<b>Mutagenic Effects:</b>	No information available
<b>Carcinogenic effects:</b>	Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Beeswax	8012-89-3	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available  
**Developmental Effects:** No information available  
**Teratogenic Effects:** No information available

#### **Specific Target Organ Toxicity**

**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organs:** No information available.

## 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

**Ecotoxicity effects:** No data available.

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

#### **Disposal Methods**

**Waste from residues / unused products:**  
Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**  
Empty containers should be taken for local recycling, recovery or waste disposal. Do not re-use empty containers  
Dispose of as unused product.

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Beeswax	8012-89-3	None	None	None	None

## 14. TRANSPORT INFORMATION

**DOT**  
**UN-No:** Not Regulated

**Product code:** W1012

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<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Class</b>	No information available
<b>Packing group:</b>	No information available
<b>Emergency Response Guide Number</b>	No information available
<b>Marine Pollutant</b>	No data available
<b>DOT RQ (lbs):</b>	No information available
<b>Special Provisions</b>	No Information available
<b>Symbol(s):</b>	No information available
<b>Description:</b>	No information available

#### **TDG (Canada)**

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available
<b>Marine Pollutant</b>	No Information available
<b>Description:</b>	No information available

#### **ADR**

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Packing Group:</b>	No information available
<b>Subsidiary Risk:</b>	No information available

#### **IMO / IMDG**

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available
<b>Marine Pollutant</b>	No information available

#### **RID**

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available

#### **ICAO**

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available

#### **IATA**

<b>UN-No:</b>	Not Regulated
<b>Proper Shipping Name:</b>	No information available
<b>Hazard Class:</b>	No information available
<b>Subsidiary Risk:</b>	No information available
<b>Packing Group:</b>	No information available
<b>ERG Code:</b>	No information available
<b>Special Provisions</b>	No information available

## 15. REGULATORY INFORMATION

### International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Beeswax	8012-89-3	Present	Present KE-02113	Present	Present (8)-429	Present	Present	Present 232-383-7

### U.S. Regulations

#### Beeswax

**FDA - Food Additives Generally Recognized as Safe (GRAS):** 21 CFR 184.1973

**FDA - 21 CFR - Total Food Additives** 101.4 184.1973

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

#### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Beeswax	8012-89-3	Not Listed	Not Listed	Not Listed	Not Listed

### CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Beeswax	8012-89-3	None	None	None	None	None

### U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Beeswax	8012-89-3	Not Applicable	Not Applicable

### Canada

#### WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Not a dangerous product according to HPR classification criteria.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

#### WHMIS 1988 Hazard Class

Non-controlled

#### **Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS

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contains all of the information required by the CPR.

## Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Beeswax	8012-89-3	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Beeswax	8012-89-3	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Beeswax	8012-89-3	Not listed

## EU Classification

### EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Beeswax	8012-89-3	

### EU - CLP (1272/2008)

#### R-phrases(s)

not determined (not applicable)

#### S -phrase(s)

none

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Beeswax	8012-89-3		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

#### Indication of danger:

None.

## 16. OTHER INFORMATION

**Preparation Date:** 8/31/2017  
**Revision Date:** 8/31/2017  
**Prepared by:** Sonia Owen

#### Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the

completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**



## **Manufacturer**

Product Covered: W1012, Yellow Wax, Cake, NF

Spectrum takes ownership as the manufacturer for the Spectrum product listed above and provides full quality assurance, customer service, and technical product support.

While information concerning the raw material manufacturer of our starting materials is considered proprietary, such information can be made available upon request contingent on demonstration of business volume justification and successful execution of confidential disclosure agreement (CDA).

Requests for disclosure of proprietary raw material manufacturer information may be submitted to the assigned account representative for consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Wang", with a large, stylized loop at the end.

Alan Wang, MSQA, ASQ CQA  
Director of Technical Services  
[techservices@spectrumchemical.com](mailto:techservices@spectrumchemical.com)



# CERTIFICATE OF REGISTRATION

This is to certify that the quality management system of:

## Spectrum Chemicals and Laboratory Products, Inc.

Main Site: 14422 South San Pedro Street, Gardena, California, 90248, USA,

Additional sites: 13915 South Main Street, Los Angeles, California, 90061, USA

769 Jersey Avenue, New Brunswick, New Jersey, 08901, USA

755 Jersey Avenue, New Brunswick, New Jersey, 08901, USA

777 Jersey Avenue, New Brunswick, New Jersey, 08901, USA

400 N. Oracle, Suite 221, Tucson, Arizona, 85704, USA, USA

has been assessed and registered by Intertek as conforming to the requirements of:

## ISO 9001:2015

The quality management system is applicable to:

Main Site: The manufacture and distribution of specialty fine chemicals, solutions, equipment, supplies and products for the laboratory, pharmaceutical, food, healthcare, cosmetic, fragrance, biotechnology, environmental and process industries.

**Certificate Number:**

94-316m-03

**Initial Certification Date:**

27 December 1994

**Certificate Issue Date:**

31 July 2017

**Certificate Expiry Date:**

28 January 2019



A handwritten signature in black ink, appearing to read 'Calin Moldovean', written over a horizontal line.

**Authorized Signature**

**Calin Moldovean**

President Business Assurance

Intertek Testing Services NA, Inc. dba Intertek  
900 Chelmsford Street, Lowell, MA, USA



# APPENDIX TO CERTIFICATE OF REGISTRATION

This appendix identifies the locations by the management system of

## Spectrum Chemicals and Laboratory Products, Inc.

755 and 769 Jersey Avenue: The manufacture and distribution of specialty fine chemicals, solutions, equipment, supplies and products for the laboratory, pharmaceutical, food, healthcare, cosmetic, fragrance, biotechnology, environmental and process industries.

777 Jersey Avenue: The manufacture and distribution of specialty fine chemicals, solutions, equipment, supplies and products for Compounding Pharmacies.

7400 N. Oracle: The manufacture and distribution of specialty fine chemicals, solutions, equipment, supplies and products for the laboratory, pharmaceutical, food, healthcare, cosmetic, fragrance, biotechnology, environmental and process industries.



# Certificate of Registration

## Intertek

This is to certify that the quality management system of

### Spectrum China Ltd.

**Building A20, No. 3802, Shengang Road, Songjiang District, Shanghai, China**

has been assessed and registered by Intertek as conforming to the requirements of

### ISO 9001: 2008

The quality management system is applicable to:

*Provision of service of purchase, testing and sales for chemical products, repacking of non-hazardous chemical products.*

Organization Code: 77762704-8  
Certificate Number: 111310001-01  
Certificate Issue Date: 17 November 2015  
Certificate Expiry Date: 14 September 2018



014

Authorised Signature: Calin Moldovean – President, Business Assurance  
Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8ZF, United Kingdom

Intertek Certification Limited is a UKAS accredited body under schedule of accreditation no. 014.

In the issuance of this certificate, Intertek assumes no liability to any party other than to the client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at [certificate.validation@intertek.com](mailto:certificate.validation@intertek.com) or by scanning the code to the right with a smartphone.

The annual validity of the certificate can also be checked through the website <http://www.cnca.gov.cn> of CNCA in China.



The certificate remains the property of Intertek, to whom it must be returned upon request.

July 13, 2017

**Certification of Compliance with current Good Manufacturing Practices**

Dear Valued Customer:

Spectrum Chemical Mfg Corp certifies that our USP, NF, FCC, EP, BP, JP and food grade products are produced, processed, packaged and held in compliance with current Good Manufacturing Practices (cGMP) in accordance with the applicable parts of 21 CFR, parts 210 and 211 of the Code of Federal Regulations.

Spectrum is an FDA registered and inspected Drug Establishment. Our United States Food and Drug Administration (USFDA) Registration numbers are as follows:

Spectrum-Gardena, CA:	<u>2020632</u>
Spectrum-New Brunswick, NJ:	<u>2246824</u>
Spectrum-Shanghai, China:	<u>3006174778</u>

Thank you for your interest in Spectrum products. If we may be of further assistance, please feel free to contact the Quality Assurance department at 310-516-8000 or via email at [qualityassurance@spectrumchemical.com](mailto:qualityassurance@spectrumchemical.com)

Sincerely,



Oralia Chavez  
Quality Assurance Specialist



September 1, 2017

**Certification of Compliance with current Good Manufacturing Practices**

Dear Valued Customer:

Spectrum Chemical Mfg Corp certifies that the following product(s) is produced, processed, packaged and held in compliance with current Good Manufacturing Practices (cGMP) in accordance with the applicable parts of 21 CFR, parts 210 and 211 of the Code of Federal Regulations.

Catalog Number	Product Name
W1012	Yellow Wax, Cake, NF

Spectrum is an FDA registered and inspected Drug Establishment. Our United States Food and Drug Administration (USFDA) Registration numbers are as follows:

Spectrum-Gardena, CA: 2020632  
Spectrum-New Brunswick, NJ: 2246824  
Spectrum-Shanghai, China: 3006174778

Thank you for your interest in Spectrum products. If we may be of further assistance, please feel free to contact the Quality Assurance department at 310-516-8000 or via email at [qualityassurance@spectrumchemical.com](mailto:qualityassurance@spectrumchemical.com)

Sincerely,

A handwritten signature in black ink, appearing to read "Oralia Chavez".

Oralia Chavez  
Quality Assurance Specialist



Aug 18, 2017

Re: Yellow Wax, Cake, NF- W1012

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

We at Spectrum Chemical Mfr. Corp. understand the concern regarding Bovine Spongiform Encephalopathy (BSE). Please be assured that the chemical

Yellow Wax, Cake, NF- W1012

is BSE/TSE free.

If you have any further questions, please contact Tech Services at (310) 516-8000 Extension 5471, or by email at [techservices@spectrumchemical.com](mailto:techservices@spectrumchemical.com).

Sincerely,

Darlene Dagdag-Lyudmirskiy  
Technical Services  
Spectrum Chemical Mfg. Corp.

This document has been produced electronically and is valid without a signature



Aug 18, 2017

Re: Yellow Wax, Cake, NF- W1012

To Whom It May Concern:

Thank you for your interest in Spectrum high quality chemicals.

We at Spectrum Chemical Mfr. Corp. understand the concern regarding the presence of allergens in raw materials. Please be assured that the following chemical does not contain (Milk; Egg; Fish; Shellfish; Sulfur dioxide and sulfites at concentrations of more than 10 mg/kg or 10 mg/liter expressed as SO<sub>2</sub>; Tree nuts; Wheat; Peanuts; Soy; Cereals containing Gluten; Celery; Mustard; Sesame Seed).

Yellow Wax, Cake, NF- W1012

If you have any further questions, please contact Tech Services at (310) 516-8000 Extension 5471, or by email at [techservices@spectrumchemical.com](mailto:techservices@spectrumchemical.com).

Sincerely,

Darlene Dagdag-Lyudmirskiy  
Technical Services  
Spectrum Chemical Mfg. Corp.

This document has been produced electronically and is valid without a signature

Item Number	W1012	Lot Number	1FH0730
Item	Yellow Wax, Cake, NF		
CAS Number	8012-89-3		
Molecular Formula		Molecular Weight	

Test	Specification		Result
	min	max	
MELTING RANGE	62 - 65 C		62 - 64°C
SAPONIFICATION CLOUD TEST	TO PASS TEST		PASSES TEST
FATS OR FATTY ACIDS, JAPAN WAX,[nROSIN AND SOAP	TO PASS TEST		PASSES TEST
ACID VALUE	17 - 24		20
ESTER VALUE	72 - 79		77
IDENTIFICATION	TO PASS TEST		PASSES TEST
EXPIRATION DATE			28-JUL-2019
RESIDUAL SOLVENTS	TO PASS TEST		NO RESIDUAL SOLVENTS USED
APPEARANCE			YELLOW SOLID
DATE OF MANUFACTURE			28-JUL-2016

Spectrum Chemical Mfg Corp  
14422 South San Pedro Street  
Gardena 90248 CA

Certificate of Analysis Results Certified By:



Adan Hernandez  
Quality Control Manager  
Spectrum Chemicals & Laboratory Products



All pharmaceutical ingredients are tested using current edition of applicable pharmacopeia.

Read and understand label and MSDS/SDS before handling any chemicals. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personal only. The customer must ensure to provide its users adequate hazardous material training and appropriate protective gears before handling our chemicals.



## Label Information

The Spectrum label presents technical and safety information in an easily understood format. Our technical specialists stay abreast of the latest requirements of the Globally Harmonized System for Classification and Labelling of Chemicals (GHS), as well as the Occupational Safety and Health Administration (OSHA), the Food and Drug Administration (FDA) and other government regulatory agencies in order to ensure compliance, accuracy and concise hazard communication.

**USE CARE:** This material has been evaluated per GHS/OSHA criteria and is not classified as hazardous. All chemicals may pose unknown hazards and must be used with caution. Use personal protection and safe handling methods consistent with proper workplace safety practices. Consult SDS for additional properties and precautions. If adverse reaction occurs seek medical attention.

**KEEP FROM CHILDREN**



**W1012** **1 KG**

**Yellow Wax**

(Beeswax)

Cake

N.F.

CAS 8012-89-3

**CAUTION:** For manufacturing, processing or repacking. Read and understand the label and Safety Data Sheet (SDS) prior to use.

**Chemical Emergency: (800)424-9300**

[www.SpectrumChemical.com](http://www.SpectrumChemical.com)

The purified wax from the honeycomb of the bee [*Apis mellifera* Linné (Fam. *Apidae*)].

Melting Range ..... 62°-65°C

Saponification Cloud Test ..... To pass test

Fats or Fatty Acids, Japan Wax, Rosin and Soap ..... To pass test

Acid Value ..... 17-24

Ester Value ..... 72-79

**MAXIMUM LIMITS**

Residual Solvents ..... To pass test

Exp. Date: 03-31-2025

**L**

**J**

**Chemical Emergency: (800)424-9300**

[www.SpectrumChemical.com](http://www.SpectrumChemical.com)

**M**

**Lot No. 062233**

**SPECTRUM CHEMICAL MFG. CORP.**
**Gardena, CA 90248 • New Brunswick, NJ 08901**

- |  |   |   |
|--|---|---|
| <p><b>A</b> Bar Code</p> <p><b>B</b> GHS Hazard Pictograms</p> <p><b>C</b> Warning, Safety Data and Precautionary Information</p> <p><b>D</b> Product Catalog Number</p> <p><b>E</b> Item Name, Form, Grade</p> <p><b>O</b> Storage Color Band</p> | <p><b>F</b> Size/Quantity</p> <p><b>G</b> Chemical Abstracts Service (CAS) Registry Number</p> <p><b>H</b> Caution Information</p> <p><b>I</b> DOT Shipping Information</p> <p><b>J</b> Toll-Free 24-Hour Chemical Emergency Telephone Number</p> | <p><b>K</b> Empirical Formula, Formula Weight and Technical Specifications Panel</p> <p><b>L</b> Expiration Information</p> <p><b>M</b> Lot Number</p> <p><b>N</b> Kosher Certified by Kosher Supervision of America (KSA).</p> |
|--|---|---|

This color-coded band indicates the hazard most likely to be posed by that material under storage conditions. The criteria used to assign band colors have been established by the Storage Code working group of the Society for Chemical Hazard Communication (SCHC). It is recommended that like colors be stored together, unless otherwise stated, based on the color codes indicated to the right. However, it is the responsibility of the customer to check with their local fire department for possible conflicts with our recommendations when storing hazardous chemicals.

- YELLOW:** Oxidizer
- RED:** Flammable
- GREEN:** General Storage
- BLUE:** Health Hazard
- WHITE:** Corrosive

### Spectrum Chemical Mfg Corp

**Corporate Headquarters:**

769 Jersey Ave.  
New Brunswick, NJ 08901  
732.214.1300

**West Coast Facility:**

14422 S. San Pedro St.  
Gardena, CA 90248  
310.516.8000

January 26, 2016

**RE: Lot Numbering System**

Dear Valued Customer:

This letter is to inform you of Spectrum Chemicals and Laboratory Products' Lot Numbering System. The system is based on an alpha-numerical sequence which provides the month, year and location of production.

The lot numbering system utilized until 2010 is a sequence of **six characters**, two letters followed by four numbers. The first letter represents the year, for example, Y denotes 2009 and Z denotes 2010. The second letter represents the month and site, for example, A-L denotes January through December at Spectrum's Gardena, CA facility, while M-X denotes January through December at the New Brunswick, NJ facility. The following four numbers are sequentially assigned.

**Example:** ZI0928 = The 928<sup>th</sup> material produced in California in September 2010

The lot numbering system utilized for 2011 and forward, is a sequence of **seven characters**. The first character, a number, represents the production facility:

- 1 = Gardena, CA Facility
- 2 = New Brunswick, NJ Facility
- 3 = China Facility

The second character, a letter, represents the year. For example, A denotes 2011 and B denotes 2012. The third character, a letter, represents the month, with A denoting January and L denoting December. The following four numbers are sequentially assigned.

**Example:** 2AA0706 = The 706<sup>th</sup> material produced in New Jersey in January 2011

Thank you for your interest with Spectrum products. Please feel free to contact us at 310-516-8000 or via email at [qualityassurance@spectrumchemical.com](mailto:qualityassurance@spectrumchemical.com) if we may be of further assistance.

Sincerely,



Michael Dang  
Manager, GMP Compliance



## **Stability – Shelf Life Guidance**

Product Covered: W1012, Yellow Wax, Cake, NF

Spectrum Chemical's manufacturing partner has assigned the following shelf life guidance for the product listed above.

The product, W1012, Yellow Wax, Cake, NF, is assigned a 36 months shelf life from date of manufacturing. The quality and integrity of the chemical depends on the handling and storage conditions. Please refer to the Safety Data Sheet for proper storage and handling procedures.

Adan R. Hernandez  
Quality Control Manager

A handwritten signature in black ink, appearing to read "Adan R. Hernandez".

Corporate Headquarters  
769 Jersey Avenue  
New Brunswick, NJ 08901-3605