

Section 1 - Product and Company Information**Product Name:** Imiquimod, TLR7 ligand**Cat. Code:** NBP2-26228**Company identification:** Novus Biologicals, LLC
8100 Southpark Way, A-8
Littleton, CO 80120 USA
1-888-506-6887**Emergency number:** (303) 730-1950, (888)506-6887 or +44(0)1235-529449**Disclaimer:** All Novus Biologicals products are supplied for research and laboratory use only. Not for drug, household or other uses.**Section 2 – Hazards Identification****Emergency Overview:****OSHA Hazards:** Highly toxic by ingestion, irritant.**Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] and GHS**

Acute toxicity, Oral (Category 2)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Specific target organ toxicity - single exposure (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Toxic if swallowed. Irritating to eyes, respiratory system and skin.

Labeling according Regulation (EC) No 1272/2008 [CLP] and GHS

Pictogram



Signal word Danger

Hazard statement

H301	Toxic if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P301 + P311	IF SWALLOWED: Call a POISON CENTER or a doctor/physician.
P305 + P351 + P338	IF IN EYES: Rinse continuously for several minutes. Remove contact lens if present and easy to do so, continue rinsing.

HMIS Classification: Health Hazard **3**, Flammability Hazard **0**, Reactivity Hazard **0**

NFPA Rating: Health Hazard **3**, Fire **0**, Reactivity Hazard **0**

Potential Health Effects

- **Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.
- **Skin:** May be harmful if absorbed through the skin. Causes skin irritation.
- **Eye contact:** Causes eye irritation.
- **Ingestion:** Toxic if swallowed.

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrase(s)

R25 Toxic if swallowed.

R36/37/38 Irritating to eyes, respiratory system and skin.

S-phrase(s)

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 3 – Composition/Information on Ingredient

Synonyms: R837, 1-(2-Methylpropyl)-1*H*-imidazole[4,5-*c*]quinoline-4-amine

Formula: C₁₄H₁₆N₄

Molecular weight: 240.3

CAS number: 99011-02-6

Section 4 – First Aid Measures

General advice: Consult a physician. Show this material safety data sheet to the doctor in attendance.

After skin contact: Immediately wash skin with soap and plenty of water. Consult a physician.

After swallowing: Never give anything by mouth to an unconscious person. Rinse mouth with water provided person is conscious. Consult a physician.

After inhalation: Remove to fresh air. If not breathing give artificial respiration. Consult a physician.

After eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician.

Section 5 – Fire Fighting Measures

Suitable extinguishing media: Water spray, carbon dioxide, dry chemical powder or appropriate foam.

Specific hazards arising from the chemical: Hazardous decomposition products formed under fire conditions; carbon oxides and nitrogen oxides.

Special Firefighting Procedures: Wear self-contained breathing apparatus for fire fighting if necessary.

Section 6 – Accidental Release Measures

Personal precautions: Wear protective equipment. Keep unprotected persons away. Avoid dust formation.

Method for Cleaning Up: Sweep up and place in closed containers for disposal. Dispose contaminated material as waste according to section 13. Ventilate area and wash spill site after material clean-up is complete.

Section 7 – Handling and Storage

Precautions for safe handling: Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage: Store at -20°C.

Section 8 – Exposure Controls / PPE

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Section 9 – Physical / Chemical Properties

Appearance

Physical state: Solid

Color: White

Safety Data

Odor: No data available

Odor threshold: No data available

pH: No data available

Melting point/freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: No data available

Evaporation rate: No data available

Flammability: No data available

Upper/lower flammability or explosive limits: No data available

Vapor pressure: No data available

Relative density: No data available

Solubility: No data available

Partition coefficient: n-octanol/water: No data available

Autoignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Section 10 – Stability and Reactivity

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No data available

Conditions to avoid: No data available

Incompatible materials: Strong oxidizing agents, strong bases

Hazardous decomposition products: No data available

Section 11 – Toxicological Information

Acute toxicity:

Oral LD50: >200 mg/kg (monkeys). Reference: Richwald GA, Imiquimod, Drugs Today 35 (1999), pp. 497–511.

Inhalation LC50: No data available

Dermal LD50: No data available

Other information on acute toxicity: No data available

Skin corrosion/irritation: No data available

Serious eye damage/irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

Additional information: No data available

Section 12 – Ecological Information

Ecotoxicity: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Section 13 – Disposal Considerations

Product: Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Must not be disposed of together with household garbage.

Contaminated Packaging: Dispose of as unused product.

Section 14 – Transport Information

ADR/RID: UN number 2811 Class: 6.1 Packaging group: III

Proper shipping name: Toxic solid, organic n.o.s. (Imiquimod)

DOT (US): UN number 2811 Class: 6.1 Packaging group: III

Proper shipping name: Toxic solid, organic n.o.s. (Imiquimod)

IMDG: UN-Number: 2811 Class: 6.1 Packing group: III EMS-No: F-A, S-A

Proper shipping name: Toxic solid, organic n.o.s. (Imiquimod)

Marine pollutant: No

IATA: UN-Number: 2811 Class: 6.1 Packing group: III

Proper shipping name: Toxic solid, organic n.o.s. (Imiquimod)

Section 15 – Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

15.2 Chemical Safety Assessment

no data available

OSHA Hazards Highly toxic by ingestion, irritant

SARA 302 Component: None of the ingredients are listed.

SARA 313 Component: None of the ingredients are listed.

SARA 311/312 Hazards: Acute health hazard

U.S. State Regulations

Chemical Name	Massachusetts RTK	New Jersey RTK	Pennsylvania RTK
Imiquimod	-	X	X

California Proposition 65: This product does not contain chemicals listed under Proposition 65.

WGK (Germany) 3

Section 16 – Other Information

The information contained in this MSDS relates only to the material(s) designated and does not relate to use(s) in combination with any other material, process(es) and/or chemical reaction(s). Novus Biologicals provides this information in good faith and is based on our present knowledge. This MSDS is provided without warranty of any kind. The recipient is responsible for ensuring that, where applicable, existing laws and guidelines are observed.