

## Chemical Safety Data Sheet MSDS / SDS

**rel-N-[(1R,2R)-2-(Dimethylamino)cyclohexyl]-3,4-difluoro-N-propylbenzamide**Revision Date:2026-03-20 Revision Number:1

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

Product name : rel-N-[(1R,2R)-2-(Dimethylamino)cyclohexyl]-3,4-difluoro-N-propylbenzamide  
CBnumber : CB613538497  
CAS : 2741276-45-7

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

**Company Identification**

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 010-86108875

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**SECTION 2: Hazards identification****GHS Label elements, including precautionary statements**

Symbol(GHS) : No data available  
Signal word : No data available

**Precautionary statements**

No data available

**Hazard statements**

No data available

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**SECTION 3: Composition/information on ingredients****Substance**

Product name : rel-N-[(1R,2R)-2-(Dimethylamino)cyclohexyl]-3,4-difluoro-N-propylbenzamide  
CAS : 2741276-45-7  
MF : C<sub>18</sub>H<sub>26</sub>F<sub>2</sub>N<sub>2</sub>O  
MW : 324.41

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## SECTION 4: First aid measures

### Description of first aid measures

#### General information

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

#### After skin contact

Generally the product does not irritate the skin.

#### After eye contact

Rinse opened eye for several minutes under running water.

#### After swallowing

Immediately call a doctor.

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## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing agents

Use fire fighting measures that suit the environment.

A solid water stream may be inefficient.

#### Special hazards arising from the substance or mixture

No further relevant information available.

#### Advice for firefighters

#### Protective equipment

Mouth respiratory protective device.

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## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Not required.

#### Environmental precautions

Do not allow to enter sewers/ surface or ground water.

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

Ensure adequate ventilation.

## **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## **Protective Action Criteria for Chemicals**

### **PAC-1**

Substance is not listed.

### **PAC-2**

Substance is not listed.

### **PAC-3**

Substance is not listed.

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## **SECTION 7: Handling and storage**

### **Handling**

#### **Precautions for safe handling**

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

#### **Information about protection against explosions and fires**

No special measures required.

#### **Conditions for safe storage, including any incompatibilities**

### **Storage**

Store in accordance with information listed on the product insert.

#### **Requirements to be met by storerooms and receptacles**

No special requirements.

#### **Information about storage in one common storage facility**

Not required.

#### **Further information about storage conditions**

Keep receptacle tightly sealed.

#### **Specific end use(s)**

No further relevant information available.

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## SECTION 8: Exposure controls/personal protection

### **Additional information about design of technical systems**

No further data; see item 7.

### **Control parameters**

### **Components with limit values that require monitoring at the workplace**

Not required.

### **Additional information**

The lists that were valid during the creation were used as basis.

### **Exposure controls**

### **Personal protective equipment**

### **General protective and hygienic measures**

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

### **Breathing equipment**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

### **Protection of hands**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

### **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

### **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

### **Eye protection**

Not required.

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## SECTION 9: Physical and chemical properties

## Information on basic physicochemical properties

### Appearance

### Physical State

Solid

### Color

According to product specification

### Odor

Characteristic

### Structural Formula

C<sub>18</sub>H<sub>26</sub>F<sub>2</sub>N<sub>2</sub>O

### Molecular Weight

324.4 g/mol

### Odor Threshold

Not determined.

### pH

Not applicable.

### Change in condition

### Melting point/Melting range

Undetermined.

### Boiling point/Boiling range

438.6±45.0 °C(Predicted)

### Flash point

Not applicable.

### Flammability (solid,gas)

Product is not flammable.

### Decomposition temperature

Not determined.

### Ignition temperature

Not determined.

### Danger of explosion

Product does not present an explosion hazard.

### **Explosion limits**

Lower: Not determined.

Upper: Not determined.

### **Vapor Pressure**

Not applicable.

### **Density**

1.12±0.1 g/cm<sup>3</sup>(Temp: 20 °C; Press: 760 Torr)(Predicted)

### **Relative Density**

1.12±0.1 g/cm<sup>3</sup>(Temp: 20 °C; Press: 760 Torr)(Predicted)

### **Vapor Density**

Not applicable.

### **Evaporation Rate**

Not applicable.

### **Solubility in / Miscibility with**

DMF: 20 mg/ml

DMF: PBS (pH 7.2) (1:3): 0.25 mg/ml

DMSO: 10 mg/ml

Ethanol: 10 mg/ml

### **Water**

Not determined.

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

Not determined.

### **Viscosity**

#### **Dynamic**

Not applicable.

#### **Kinematic**

Not applicable.

### **SOLUBILITY**

DMF: 20 mg/ml; DMF:PBS (pH 7.2) (1:3): 0.25 mg/ml;

DMSO: 10 mg/ml;Ethanol: 10 mg/ml

### **Other information**

No information available

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## SECTION 10: Stability and reactivity

### Reactivity

No further relevant information available.

### Chemical stability

### Thermal decomposition / conditions to be avoided

No decomposition if used according to specifications.

### Possibility of hazardous reactions

No dangerous reactions known.

### Conditions to avoid

No further relevant information available.

### Incompatible materials

No further relevant information available.

### Hazardous decomposition products

No dangerous decomposition products known.

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

#### Primary irritant effect

##### on the skin

No irritant effect.

##### on the eye

No irritating effect.

#### Sensitization

No sensitizing effects known.

### Additional toxicological information

#### Carcinogenic categories

## **IARC (International Agency for Research on Cancer)**

Substance is not listed.

## **NTP (National Toxicology Program)**

Substance is not listed.

## **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

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# **SECTION 12: Ecological information**

## **Toxicity**

### **Aquatic toxicity**

No further relevant information available.

### **Persistence and degradability**

No further relevant information available.

### **Behavior in environmental systems**

### **Bioaccumulative potential**

No further relevant information available.

### **Mobility in soil**

No further relevant information available.

### **Additional ecological information**

### **General notes**

Water hazard class 1 (Self-assessment) slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### **Results of PBT and vPvB assessment**

#### **PBT**

Not applicable.

#### **vPvB**

Not applicable.

#### **PBT:**

Not applicable.

#### **vPvB:**

Not applicable.

#### **Other adverse effects**

No further relevant information available.

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## **SECTION 13: Disposal considerations**

#### **Waste treatment methods**

##### **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

#### **Uncleaned packagings**

##### **Recommendation**

Disposal must be made according to official regulations.

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## **SECTION 14: Transport information**

#### **UN-Number**

DOT, IMDG, IATA not regulated

#### **UN proper shipping name**

DOT, IMDG, IATA not regulated

#### **Transport hazard class(es)**

DOT, ADN, IMDG, IATA

Class not regulated

#### **Packing group**

DOT, IMDG, IATA not regulated

#### **Environmental hazards**

Not applicable.

#### **Special precautions for user**

Not applicable.

#### **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

MARPOL73/78 and the IBC Code Not applicable.

#### **UN "Model Regulation"**

not regulated

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## SECTION 15: Regulatory information

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|                                                 |                          |
|-------------------------------------------------|--------------------------|
| Section 355 (extremely hazardous substances):   | Substance is not listed. |
| Section 313 (Specific toxic chemical listings): | Substance is not listed. |
| TSCA (Toxic Substances Control Act):            | Substance is not listed. |
| Hazardous Air Pollutants:                       | Substance is not listed. |

#### Section 355 (extremely hazardous substances)

Substance is not listed.

#### Section 313 (Specific toxic chemical listings)

Substance is not listed.

#### TSCA (Toxic Substances Control Act)

Substance is not listed.

#### Hazardous Air Pollutants

Substance is not listed.

### Proposition 65

|                                                             |                          |
|-------------------------------------------------------------|--------------------------|
| Chemicals known to cause cancer:                            | Substance is not listed. |
| Chemicals known to cause reproductive toxicity for females: | Substance is not listed. |
| Chemicals known to cause reproductive toxicity for males:   | Substance is not listed. |
| Chemicals known to cause developmental toxicity:            | Substance is not listed. |

#### Chemicals known to cause cancer

Substance is not listed.

#### Chemicals known to cause reproductive toxicity for females

Substance is not listed.

#### Chemicals known to cause reproductive toxicity for males

Substance is not listed.

#### Chemicals known to cause developmental toxicity

Substance is not listed.

### Carcinogenic categories

|                                        |                          |
|----------------------------------------|--------------------------|
| EPA (Environmental Protection Agency): | Substance is not listed. |
|----------------------------------------|--------------------------|

#### TLV (Threshold Limit Value)

Substance is not listed.

### NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

### **Chemical safety assessment**

A Chemical Safety Assessment has not been carried out.

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## **SECTION 16: Other information**

### **Abbreviations and acronyms**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Toxicity - Oral 4: Acute toxicity – Category 4

#### **Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.