



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

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

1.1. Product identifier

Product Code(s)	MM0400.11-0025
Product Name	3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide
Form	Not applicable

NOTE [8] - No registration number is given for this substance because it is under the threshold in REACH Article 6(1) and not subject to the registration requirements according to REACH Title II

Substance Name	3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide
EC No. (Index No.)	893-410-1
CAS No.	148146-51-4
Pure substance/mixture	Substance
Formula	C ₂₆ H ₂₂ F N O ₄
Molecular weight	431.46

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use	Laboratory use
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet



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Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

Supplier

LGC Limited
The Priestley Centre 10
Priestley Road
Surrey Research Park
Guildford, England
GU2 7XY
Tel :+44 (0) 20 8943 7000
Fax :+44 (0) 20 8943 2767
eMail : gb@lgcstandards.com

Web : www.lgcstandards.com

For further information, please contact

E-mail address sds-request@lgcstandards.com

1.4. Emergency telephone number

Emergency Telephone For Hazardous Materials or Dangerous Goods Incident
Spill, Leak, Fire Exposure, or Accident
Call CHEMTREC:
USA & Canada 1-800-424-9300
Rest of the world +1 703-741-3877

Emergency Telephone - §45 - (EC)1272/2008	
Europe	112
Austria	No information available
Bulgaria	
Croatia	
Cyprus	
Czech Republic	
Denmark	
France	
Hungary	
Ireland	
Italy	
Lithuania	
Luxembourg	
Netherlands	
Norway	
Portugal	
Romania	



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Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

Slovakia	
Slovenia	
Spain	
Sweden	
Switzerland	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to
Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity - Oral	Category 4 - (H302)
Acute toxicity - Dermal	Category 4 - (H312)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)

2.2. Label elements

148146-51-4

Contains 3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide



Signal word

Warning

Hazard statements

H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.

H332 - Harmful if inhaled.

Precautionary Statements - EU (§28, 1272/2008)

P261 - Avoid breathing dust, fume, gas, mist, vapors and spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves and protective clothing

P312 - Call a POISON CENTER or doctor if you feel unwell

P321 - Specific treatment (see supplemental first aid instructions on this label)

P501 - Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable



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2.3. Other hazards

Other hazards No information available.

PBT or vPvB properties This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

Endocrine Disruptor Information The substance is identified as having no endocrine disrupting properties according to Regulation (EC) No 1907/2006, Article 59(1) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	-	-

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Weight-%	REACH registration number	EC No. (Index No.)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	100	-	893-410-1	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332)	-	-	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
No information available

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	No data available	No data available	No data available	No data available	No data available



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Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
148146-51-4					

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59).

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. If symptoms persist, call a doctor.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a doctor.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing dust/fume/gas/mist/vapours/spray. Use personal protective equipment as required. See section 8 for more information.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Coughing and/ or wheezing. Difficulty in breathing.
Effects of Exposure	No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

Hazardous combustion products No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Avoid generation of dust. Do not breathe dust.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.



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Revision date 27-Feb-2026

Revision Number 2

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6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid generation of dust. Do not eat, drink or smoke when using this product.

General hygiene considerations Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Avoid breathing dust/fume/gas/mist/vapours/spray.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

Storage class (TRGS 510) LGK 11.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-		-	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland



SAFETY DATA SHEET

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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-	-
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-	-
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-	-
Chemical name	Sweden		Switzerland		United Kingdom
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-		-		-

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-	-
Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-	-
Chemical name	Hungary	Ireland	Italy MDLPS	Italy AIDII	
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic	-	-	-	-	



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

acid phenylamide 148146-51-4				
Chemical name	Latvia	Luxembourg	Romania	Slovakia
3-(4-Fluorobenzoyl)-2-isobutyryl -3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-
Chemical name	Slovenia	Spain	Switzerland	United Kingdom
3-(4-Fluorobenzoyl)-2-isobutyryl -3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-

Derived No Effect Level (DNEL) - Workers No information available

Chemical name	Oral	Dermal	Inhalation
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-

Derived No Effect Level (DNEL) - General Public No information available.

Chemical name	Oral	Dermal	Inhalation
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-

Chemical name	Oral	Dermal	Inhalation
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide - 148146-51-4	-	-	-

Predicted No Effect Concentration (PNEC) No information available.



SAFETY DATA SHEET

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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-	-	-

8.2. Exposure controls

Personal protective equipment

Eye/face protection

Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Hand protection

Wear suitable gloves. The protective gloves to be used must comply with the specifications of (EU) 2016/425. Wear protective nitrile rubber gloves.

Gloves

Duration of contact	Glove thickness 0.11 mm	Break through time 480 minutes	PPE - Glove material Wear protective nitrile rubber gloves
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Skin and body protection

Wear suitable protective clothing.

Respiratory protection

Use appropriate respiratory protection. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material.

Recommended filter type:

white. Particulates filter conforming to EN 143.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties



SAFETY DATA SHEET

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Revision date 27-Feb-2026

Revision Number 2

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9.1. Information on basic physical and chemical properties

Appearance	Solid
Physical state	Solid
Colour	white, to, off-white
Odour	No information available
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	179 - 182 °C	None known
Boiling point or initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Lower and upper explosion limit/flammability limit		None known
Lower explosion limit	No data available	
Upper explosion limit	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
SADT (°C)	No data available	None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Solubility	Methanol Acetonitrile Chloroform	
Water solubility	No data available	None known
Partition coefficient n-octanol/water (log value)	No data available	None known
Vapour pressure	No data available	None known
Density and/or relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

Molecular formula	C ₂₆ H ₂₂ F N O ₄
Molecular weight	431.46

9.2.1. Information with regards to physical hazard classes

No information available

9.2.2. Other safety characteristics

No information available



SAFETY DATA SHEET

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Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Excessive heat.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. Harmful by inhalation. (based on components).

Eye contact Specific test data for the substance or mixture is not available.

Skin contact May be absorbed through the skin in harmful amounts. Harmful in contact with skin. (based



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Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

on components).

Ingestion

Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Coughing and/ or wheezing. Difficulty in breathing.

Acute toxicity

Harmful if swallowed. Harmful by skin contact. Harmful by inhalation.

Numerical measures of toxicity

No information available

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	-	-	-

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

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Chemical name	European Union
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	-

Carcinogenicity

Based on available data, the classification criteria are not met.

Chemical name	European Union
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	-

Reproductive toxicity

Based on available data, the classification criteria are not met.

Chemical name	European Union
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	-



SAFETY DATA SHEET

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Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disruption for human health This product does not contain any known or suspected endocrine disruptors.

Chemical name	Endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4)
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	-

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity No information available.

Chemical name	Fish	Crustacea	Algae/aquatic plants	Toxicity to microorganisms
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	-	-	-	-

Chemical name	Earthworm	Avian	Honeybees
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phe	-	-	-



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Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

Chemical name	Earthworm	Avian	Honeybees
nyl-oxirane-2-carboxylic acid phenylamide			

12.2. Persistence and degradability No information available.

12.3. Bioaccumulative potential No information available.

Chemical name	Partition coefficient	Bioconcentration factor (BCF)	Trophic magnification factor (TMF)
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	-	-	-

12.4. Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

Chemical name	PBT and vPvB assessment
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	Not determined

12.6. Endocrine disrupting properties Based on available data, the classification criteria are not met.

12.7. Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

Chemical name	PMT and vPvM assessment
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	Not determined

SECTION 13: Disposal considerations



SAFETY DATA SHEET

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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number Not regulated
14.2
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

IMDG

14.1 UN number or ID number Not regulated
14.2
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number Not regulated
14.2
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

ADR

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable



SAFETY DATA SHEET

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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

14.6 Special precautions for user

Special Provisions None

ADN

14.1 UN number or ID number Not regulated

14.2

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazard Not applicable

14.6 Special precautions for user

Special Provisions None

SECTION 15: Regulatory information

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

National regulations

Chemical name	French RG number
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-

Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1)

Chemical Prohibition Ordinance (ChemVerbotsV)

Not applicable.

Chemical name	Number	Class
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxiran e-2-carboxylic acid phenylamide 148146-51-4	-	-

TRGS 905 Not applicable

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid	-	-	-



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
phenylamide 148146-51-4			

Switzerland

Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018 Not applicable

Storage of Hazardous Material SC 11/13

WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20 Class B

Major Accidents Ordinance SR 814.012 Not applicable

Chemical name	Threshold quantity
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV). This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-

Persistent Organic Pollutants

Not applicable

Chemical name	European Export/Import Restrictions per (EC) 649/2012 - Annex Number
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide	-	-



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

148146-51-4		
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Ozone-depleting substances (ODS) regulation (EC) 2024/590

Not applicable.

Chemical name	Ozone depletion potential (ODP)	Global warming potential (GWP)	Status
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-	-	-

Chemical name	EU - Plant Protection Products (1107/2009/EC)
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-

Chemical name	EU - Water Framework Directive (2000/60/EC)
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-

Chemical name	EU - Environmental Quality Standards (2008/105/EC)
3-(4-Fluorobenzoyl)-2-isobutyryl-3-phenyl-oxirane-2-carboxylic acid phenylamide 148146-51-4	-

Explosives Precursors Marketing and Use (2019/1148)

Not applicable.

International Inventories

TSCA

U.S. INVENTORY (TSCA): Not listed on inventory. For purposes of 40 CFR 720.36, this product is for Research and Development (R&D) Use Only

DSL/NDSL

Contact supplier for inventory compliance status

EINECS/ELINCS

Contact supplier for inventory compliance status

ENCS

Contact supplier for inventory compliance status

IECSC

Contact supplier for inventory compliance status

KECL

Contact supplier for inventory compliance status

PICCS

Contact supplier for inventory compliance status

AIIC

Contact supplier for inventory compliance status

NZIoC

Contact supplier for inventory compliance status



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

TCSI

Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing Chemicals Inventory
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
TCSI - Taiwan Chemical Substance Inventory

15.2. Chemical safety assessment

Chemical Safety Report

No information available

SECTION 16: Other information

Full text of any hazard and/or precautionary statements referred to under Sections 2-15

H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H332 - Harmful if inhaled
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
P330 - Rinse mouth
P501 - Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable
P280 - Wear protective gloves, protective clothing, eye protection and face protection
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P312 - Call a POISON CENTER or doctor if you feel unwell
P321 - Specific treatment (see supplemental first aid instructions on this label)
P362 + P364 - Take off contaminated clothing and wash it before reuse
P261 - Avoid breathing dust, fume, gas, mist, vapors and spray
P271 - Use only outdoors or in a well-ventilated area
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

Key or legend to abbreviations and acronyms used in the safety data sheet

List may include phrases which are not applicable to this product

ACGIH	American Conference of Governmental Industrial Hygienists
AIDII	Italian Association of Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)



SAFETY DATA SHEET

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Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DFG	German Research Foundation
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
ECHA	European Chemicals Agency
EC Number	European Community number
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	U.S. Environmental Protection Agency
EWC	European Waste Codes
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organisation
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organisation for Standardisation
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MAK	Maximum Concentration at the Workplace
MAL	Measuring Technical Hygienic Air Needs
MARPOL	International Convention for the Prevention of Pollution from Ships
MDLPS	Ministry of Labour and Social Policy
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
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Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
REACH	Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
SVHC	Substance of very high concern
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TRGS	Technical Rule for Hazardous Substances
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
As	Allergenic substance
C	Carcinogen
DS	Dermal Sensitizer
Ot	Ototoxicant
pOt	Ototoxicant - potential to cause hearing disorders
PS	Photosensitizer
RS	Respiratory Sensitizer
S	Sensitizer
poS	Sensitizer - capable of causing occupational asthma
Sa	Simple asphyxiant
Sd	Skin designation
pSd	Skin designation - potential for cutaneous absorption
Sdv	Skin designation - vacated
Sk	Skin notation
dSk	Skin notation - danger of cutaneous absorption
pSk	Skin notation - potential for cutaneous absorption



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

U.S. Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
U.S. Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
United Nations World Health Organization (WHO)



SAFETY DATA SHEET

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Revision date 27-Feb-2026

Revision Number 2

MM0400.11-0025 - 3-[(4-Fluorophenyl)carbonyl]-2-(2-methylpropanoyl)-N,3-diphenyloxirane-2-carboxamide

Revision date 27-Feb-2026

Reason for revision Gloves Material EC Number Personal protection

Disclaimer

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End of Safety Data Sheet