

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Description:

Cat No:

CAS No:

4'-(5-Bromo-6-chloro-4-(trifluoromethyl)pyridin-2-yl)morpholine

ACI-00050

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

Recommended Use:

Laboratory Chemicals

Uses advised against:

No information available

Details of the supplier of the safety data sheet

Company

Advanced Chemical Intermediates Limited

The Old Dairy

Tresplatt

Davidstow

Cornwall

PL32 9YD

Tel: +44 (0) 1840 261451

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

| | |
|---|-------------|
| Acute oral toxicity | Category 4 |
| Acute dermal toxicity | Category 4 |
| Acute Inhalation toxicity – Dusts and mists | Category 4 |
| Skin corrosion/irritation | Category 2 |
| Serious Eye Damage/Eye irritation | Category 2A |
| Specific target organ systemic toxicity (single exposure) | Category 3 |

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

For the full text of the R phrases mentioned in this section, see section 16

Symbol(s)

Xn – Harmful

R – phrase(s)

None

Risk Combination Phrases

R20/21/22 – Harmful by inhalation, in contact with skin and if swallowed

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

Label Elements



Signal Word

Warning

Hazard Statements

H302 – Harmful if swallowed

H315 – Causes skin irritation

H319 – Causes serious eye irritation

H332 – Harmful if inhaled

H312 – Harmful in contact with skin

H335 – May cause respiratory irritation

Precautionary Statements – EU (S28, 1272/2008)

P280 – Wear protective gloves/protective clothing/eye protection/face protection

P302 + P352 – IF ON SKIN : Wash with plenty of soap and water

P261 – Avoid breathing dust/fume/gas/mist/vapours/spray

P301 + P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing.

Other Hazards

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component: 4'-(5-Bromo-6-chloro-4-(trifluoromethyl)pyridin-2-yl)morpholine

CAS No:

EC No:

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes, Obtain medical attention

| | |
|---------------------|--|
| Skin Contact | wash off immediately with soap and plenty of water removing all contaminated clothes and shoes, Obtain medical attention |
| Ingestion | Clean mouth with water, Obtain medical attention |
| Inhalation | Remove from exposure, lie down. Move to fresh air if breathing is difficult, give oxygen if not breathing, give artificial respiration, Obtain medical attention |

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Water spray Carbon dioxide (CO2) Dry chemical foam

Extinguishing media which must not be used for safety reasons

No information available

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours

Advice for fire-fighters

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

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Sweep up or spillage and collect in suitable container for disposal. Use suitable absorbent if required. Do not let this chemical enter the environment

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Do not breath dust. Do not breath vapours or spray mist. Do not ingest

Conditions for Safe Storage, including and incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| | |
|---|--------------------------|
| Exposure limits | Not applicable |
| Derived No Effect Level (DNEL) | No information available |
| Predicted No Effect Concentration (PNEC) | No information available |

Exposure Controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to workstation location.

Personal Protective Equipment

- | | |
|------------------------------------|---|
| 1. Eye protection | Goggles |
| 2. Hand protection | Protective gloves |
| 3. Skin and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure |
| 4. Respiratory protection | Follow the OSHA respirator regulations found in 29 CFR 1910.134 OR European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |

Hygiene Measures

Handle in accordance with good industrial hygiene practice

Environmental Exposure Controls

No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------|----------------|
| Physical State | SOLID |
| Appearance | WHITE SOLID |
| Boiling Point/Range | - |
| Melting Point/Range | 110-112 C |
| Flash Point | - |
| Molecular Formula | C10H9BrClF3N2O |
| Molecular Weight | 345.55 |

10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under normal conditions

Possibility of Hazardous Reactions

Hazardous Polymerization No information available

Hazardous Reactions No information available

Conditions to Avoid

Incompatible products. Heat.

Incompatible Materials

Acids, bases, strong oxidizing agents, strong reducing agents,

Hazardous Decomposition Products

In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Product Information

No acute toxicity information available for product

Component Information

Chronic Toxicity

Carcinogenicity

There are no known carcinogenic chemicals in product

Sensitization

No information available

Mutagenic Effects

No information available

Reproductive Effects

No information available

Developmental Effects

No information available

Target Organs

No information available

Other Adverse Effects

The toxicological properties have not been fully investigated

Endocrine Disruptor Information

None known

12. ECOLOGICAL INFORMATION

Toxicity

Eco-toxicity Effects

Do not empty into drains

Persistence and Degradability

No information available

Bio-accumulative Potential

No information available

Mobility in Soil

No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Waste from Residues/Unused Products

Dispose of in accordance with local regulations

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO

Not regulated

ADR

Not regulated

IATA

Not regulated

15. REGULATORY INFORMATION

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

Chemical Safety Assessment

A Chemical safety assessment has not been carried out.

International Inventories

16. OTHER INFORMATION

Text of R phrases mentioned in Section 2 – 3

R20/21/22 – Harmful by inhalation, in contact with skin and if swallowed

R36-37-38 – Irritating to eyes, respiratory system and skin

Revision Date 16-Nov-2010

Revision Summary Not Applicable

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

Disclaimer

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Product Identifier

Product Description:

Cat No:

CAS No:

4'-(5-Bromo-6-chloro-4-(trifluoromethyl)pyridin-2-yl)morpholine

ACI-00050

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

Recommended Use:

Laboratory Chemicals

Uses advised against:

No information available

Details of the supplier of the safety data sheet

Company

Advanced Chemical Intermediates Limited

The Old Dairy

Tresplatt

Davidstow

Cornwall

PL32 9YD

Tel: +44 (0) 1840 261451

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

| | |
|---|-------------|
| Acute oral toxicity | Category 4 |
| Acute dermal toxicity | Category 4 |
| Acute Inhalation toxicity – Dusts and mists | Category 4 |
| Skin corrosion/irritation | Category 2 |
| Serious Eye Damage/Eye irritation | Category 2A |
| Specific target organ systemic toxicity (single exposure) | Category 3 |

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

For the full text of the R phrases mentioned in this section, see section 16

Symbol(s)

Xn – Harmful

R – phrase(s)

None

Risk Combination Phrases

R20/21/22 – Harmful by inhalation, in contact with skin and if swallowed

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

Label Elements



Signal Word

Warning

Hazard Statements

H302 – Harmful if swallowed

H315 – Causes skin irritation

H319 – Causes serious eye irritation

H332 – Harmful if inhaled

H312 – Harmful in contact with skin

H335 – May cause respiratory irritation

Precautionary Statements – EU (S28, 1272/2008)

P280 – Wear protective gloves/protective clothing/eye protection/face protection

P302 + P352 – IF ON SKIN : Wash with plenty of soap and water

P261 – Avoid breathing dust/fume/gas/mist/vapours/spray

P301 + P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing.

Other Hazards

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component:

4'-(5-Bromo-6-chloro-4-(trifluoromethyl)pyridin-2-yl)morpholine

CAS No:

EC No:

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes, Obtain medical attention

| | |
|---------------------|--|
| Skin Contact | wash off immediately with soap and plenty of water removing all contaminated clothes and shoes, Obtain medical attention |
| Ingestion | Clean mouth with water, Obtain medical attention |
| Inhalation | Remove from exposure, lie down. Move to fresh air if breathing is difficult, give oxygen if not breathing, give artificial respiration, Obtain medical attention |

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Water spray Carbon dioxide (CO2) Dry chemical foam

Extinguishing media which must not be used for safety reasons

No information available

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours

Advice for fire-fighters

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

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Sweep up or spillage and collect in suitable container for disposal. Use suitable absorbent if required. Do not let this chemical enter the environment

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Do not breath dust. Do not breath vapours or spray mist. Do not ingest

Conditions for Safe Storage, including and incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| | |
|---|--------------------------|
| Exposure limits | Not applicable |
| Derived No Effect Level (DNEL) | No information available |
| Predicted No Effect Concentration (PNEC) | No information available |

Exposure Controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to workstation location.

Personal Protective Equipment

- | | |
|------------------------------------|---|
| 1. Eye protection | Goggles |
| 2. Hand protection | Protective gloves |
| 3. Skin and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure |
| 4. Respiratory protection | Follow the OSHA respirator regulations found in 29 CFR 1910.134 OR European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |

Hygiene Measures

Handle in accordance with good industrial hygiene practice

Environmental Exposure Controls

No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------|----------------|
| Physical State | SOLID |
| Appearance | WHITE SOLID |
| Boiling Point/Range | - |
| Melting Point/Range | 110-112 C |
| Flash Point | - |
| Molecular Formula | C10H9BrClF3N2O |
| Molecular Weight | 345.55 |

10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under normal conditions

Possibility of Hazardous Reactions

Hazardous Polymerization No information available

Hazardous Reactions No information available

Conditions to Avoid

Incompatible products. Heat.

Incompatible Materials

Acids, bases, strong oxidizing agents, strong reducing agents,

Hazardous Decomposition Products

In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Product Information

No acute toxicity information available for product

Component Information

Chronic Toxicity

Carcinogenicity

There are no known carcinogenic chemicals in product

Sensitization

No information available

Mutagenic Effects

No information available

Reproductive Effects

No information available

Developmental Effects

No information available

Target Organs

No information available

Other Adverse Effects

The toxicological properties have not been fully investigated

Endocrine Disruptor Information

None known

12. ECOLOGICAL INFORMATION

Toxicity

Eco-toxicity Effects

Do not empty into drains

Persistence and Degradability

No information available

Bio-accumulative Potential

No information available

Mobility in Soil

No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Waste from Residues/Unused Products

Dispose of in accordance with local regulations

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO

Not regulated

ADR

Not regulated

IATA

Not regulated

15. REGULATORY INFORMATION

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

Chemical Safety Assessment

A Chemical safety assessment has not been carried out.

International Inventories

16. OTHER INFORMATION

Text of R phrases mentioned in Section 2 – 3

R20/21/22 – Harmful by inhalation, in contact with skin and if swallowed

R36-37-38 – Irritating to eyes, respiratory system and skin

Revision Date 16-Nov-2010

Revision Summary Not Applicable

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Uses advised against:

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| Acute dermal toxicity | Category 4 |
| Acute Inhalation toxicity – Dusts and mists | Category 4 |
| Skin corrosion/irritation | Category 2 |
| Serious Eye Damage/Eye irritation | Category 2A |
| Specific target organ systemic toxicity (single exposure) | Category 3 |

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

For the full text of the R phrases mentioned in this section, see section 16

Symbol(s)

Xn – Harmful

R – phrase(s)

None

Risk Combination Phrases

R20/21/22 – Harmful by inhalation, in contact with skin and if swallowed

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

Label Elements



Signal Word

Warning

Hazard Statements

H302 – Harmful if swallowed

H315 – Causes skin irritation

H319 – Causes serious eye irritation

H332 – Harmful if inhaled

H312 – Harmful in contact with skin

H335 – May cause respiratory irritation

Precautionary Statements – EU (S28, 1272/2008)

P280 – Wear protective gloves/protective clothing/eye protection/face protection

P302 + P352 – IF ON SKIN : Wash with plenty of soap and water

P261 – Avoid breathing dust/fume/gas/mist/vapours/spray

P301 + P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing.

Other Hazards

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component: 4'-(5-Bromo-6-chloro-4-(trifluoromethyl)pyridin-2-yl)morpholine

CAS No:

EC No:

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes, Obtain medical attention

| | |
|---------------------|--|
| Skin Contact | wash off immediately with soap and plenty of water removing all contaminated clothes and shoes, Obtain medical attention |
| Ingestion | Clean mouth with water, Obtain medical attention |
| Inhalation | Remove from exposure, lie down. Move to fresh air if breathing is difficult, give oxygen if not breathing, give artificial respiration, Obtain medical attention |

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Water spray Carbon dioxide (CO2) Dry chemical foam

Extinguishing media which must not be used for safety reasons

No information available

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours

Advice for fire-fighters

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

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Sweep up or spillage and collect in suitable container for disposal. Use suitable absorbent if required. Do not let this chemical enter the environment

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Do not breath dust. Do not breath vapours or spray mist. Do not ingest

Conditions for Safe Storage, including and incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| | |
|---|--------------------------|
| Exposure limits | Not applicable |
| Derived No Effect Level (DNEL) | No information available |
| Predicted No Effect Concentration (PNEC) | No information available |

Exposure Controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to workstation location.

Personal Protective Equipment

- | | |
|------------------------------------|---|
| 1. Eye protection | Goggles |
| 2. Hand protection | Protective gloves |
| 3. Skin and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure |
| 4. Respiratory protection | Follow the OSHA respirator regulations found in 29 CFR 1910.134 OR European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |

Hygiene Measures

Handle in accordance with good industrial hygiene practice

Environmental Exposure Controls

No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------|----------------|
| Physical State | SOLID |
| Appearance | WHITE SOLID |
| Boiling Point/Range | - |
| Melting Point/Range | 110-112 C |
| Flash Point | - |
| Molecular Formula | C10H9BrClF3N2O |
| Molecular Weight | 345.55 |

10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under normal conditions

Possibility of Hazardous Reactions

Hazardous Polymerization No information available

Hazardous Reactions No information available

Conditions to Avoid

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Incompatible Materials

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11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Product Information

No acute toxicity information available for product

Component Information

Chronic Toxicity

Carcinogenicity

There are no known carcinogenic chemicals in product

Sensitization

No information available

Mutagenic Effects

No information available

Reproductive Effects

No information available

Developmental Effects

No information available

Target Organs

No information available

Other Adverse Effects

The toxicological properties have not been fully investigated

Endocrine Disruptor Information

None known

12. ECOLOGICAL INFORMATION

Toxicity

Eco-toxicity Effects

Do not empty into drains

Persistence and Degradability

No information available

Bio-accumulative Potential

No information available

Mobility in Soil

No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Waste from Residues/Unused Products

Dispose of in accordance with local regulations

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO

Not regulated

ADR

Not regulated

IATA

Not regulated

15. REGULATORY INFORMATION

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

Chemical Safety Assessment

A Chemical safety assessment has not been carried out.

International Inventories

16. OTHER INFORMATION

Text of R phrases mentioned in Section 2 – 3

R20/21/22 – Harmful by inhalation, in contact with skin and if swallowed

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