

Revision Date 16-Apr-2013

Revision Number 4

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Description: 2-Amino-4,4,4-trifluorobutyric acid
Cat No. 297350000; 297352500
Synonyms 3-Trifluoromethylalanine

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

Acros Organics BVBA
 Janssen Pharmaceuticaaan 3a
 2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01
 For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99
 Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300
 CHEMTREC Phone Number, Europe: 001-703-527-3887

SECTION 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 2
Specific target organ 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 and H-Statements mentioned in this Section, see Section 16

Symbol(s) Xn - Harmful

R-phrases(s)

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

SECTION 2. HAZARDS IDENTIFICATION

Label Elements



Signal Word

Warning

Hazard Statements

H335 - May cause respiratory irritation
 H319 - Causes serious eye irritation
 H315 - Causes skin irritation
 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/ spray
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

Other Hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	DSD Classification - 67/548/EEC	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
2-Amino-4,4,4-trifluorobutyric acid 15960-05-1		>95	15960-05-1	Xi; R36/37/38 Xn; R20/21/22	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4. FIRST AID MEASURES

Description of first aid measures

General Advice

If symptoms persist, call a physician

Eye Contact

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

Skin Contact	Obtain medical attention. Wash off immediately with plenty of water for at least 15 minutes.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur..
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.
Protection of First-aiders	Use personal protective equipment
Notes to Physician	Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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 vapors

Advice for fire-fighters

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation.

Environmental precautions

Should not be released into the environment.

Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal..

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Conditions for safe storage, including any incompatibilities

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

Specific End Uses

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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.
Biological limit values	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.
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 the workstation location
Personal protective equipment	
Eye Protection	Goggles
Hand Protection	Protective gloves
Skin and body protection	Long sleeved clothing
Respiratory Protection	No protective equipment is needed under normal use conditions
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice
Environmental exposure controls	No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Powder Solid
Appearance	Off-white
pH	No information available.
Vapor Density	Not applicable
Viscosity	Not applicable
Boiling Point/Range	No information available.
Melting Point/Range	256 - 258°C / 492.8 - 496.4°F
Flash Point	No information available.
Autoignition Temperature	Not applicable
Evaporation Rate	Not applicable
Molecular Formula	C4 H6 F3 N O2
Molecular Weight	157.09

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous Polymerization	No information available.
Hazardous Reactions	None under normal processing..

Conditions to Avoid

Incompatible products, Excess heat, Avoid dust formation.

Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases, Strong reducing agents.

Hazardous Decomposition Products

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO₂). Gaseous hydrogen fluoride (HF).

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Product Information

Component Information

Chronic Toxicity

Carcinogenicity

There are no known carcinogenic chemicals in this 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.

Endocrine Disruptor Information

None known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Do not empty into drains

Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Other adverse effects

No information available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products

Waste is classified as hazardous Dispose of in accordance with the European Directives on waste and hazardous waste Dispose of in accordance with local regulations

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

Other Information

Waste codes should be assigned by the user based on the application for which the product was used Do not empty into drains

SECTION 14. TRANSPORT INFORMATION

IMDG/IMO

Not regulated

SECTION 14. TRANSPORT INFORMATION

ADR Not regulated

IATA Not regulated

SECTION 15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories****Legend****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**AICS** - Australian Inventory of Chemical Substances**KECL** - Existing and Evaluated Chemical Substances**Chemical Safety Assessment****SECTION 16. OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

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

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

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed

H312 - Harmful in contact with skin

H332 - Harmful if inhaled

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

Revision Date 16-Apr-2013

Revision Summary

Reason for revision Not applicable

Training Advice Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

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

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet