

# **2,4,5-Trifluorophenylacetic acid** Safety Data Sheet 2721345 according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 10/02/2015 Version: 1.0

| SECTION 1: Identification   |  |
|---|--|
| 1.1. Identification   |  |
| Product form  | : Substance  |
| Substance name  | : 2,4,5-Trifluorophenylacetic acid   |
| CAS No  | : 209995-38-0  |
| Product code  | : 2721-3-45  |
| Formula   | : C8H5F3O2   |
| Other means of identification   | : MFCD00082479   |
| 1.2. Relevant identified uses of the sul  | bstance or mixture and uses advised against  |
| Use of the substance/mixture  | : Laboratory chemicals<br>Manufacture of substances<br>Scientific research and development   |
| 1.3. Details of the supplier of the safet   | y data sheet   |
| SynQuest Laboratories, Inc.   |  |
| P.O. Box 309  |  |
| Alachua, FL 32615 - United States of America<br>T (386) 462-0788 - F (386) 462-7097       |  |
| info@synquestlabs.com - www.synquestlabs.c  | om   |
| 1.4. Emergency telephone number   |  |
| Emergency number  | : (844) 523-4086 (3E Company - Account 10069)  |
| SECTION 2: Hazard(s) identification   | n  |
| 2.1. Classification of the substance or   |  |
|   | Inixture   |
| Classification (GHS-US)   |  |
| Skin Irrit. 2 H315 - Causes skin irritation   |  |
| Eye Irrit. 2A H319 - Causes serious eye irrit<br>STOT SE 3 H335 - May cause respiratory i |  |
| Full text of H-phrases: see section 16  |  |
| Tuntext of H-philases. See section To   |  |
| 2.2. Label elements   |  |
| GHS-US labeling   |  |
| Hazard pictograms (GHS-US)  |  |
|   |  |
|   |  |
|   |  |
|   |  |
| Circuit (CLIC LIC)  | GHS07  |
| Signal word (GHS-US)  | : Warning  |
| Hazard statements (GHS-US)  | : H315 - Causes skin irritation<br>H319 - Causes serious eye irritation  |
|   | H335 - May cause respiratory irritation  |
| Precautionary statements (GHS-US)   |  |
|   | : P261 - Avoid breathing dust, mist  |
|   | P264 - Wash skin thoroughly after handling   |
| rocadionary statements (Ono-OO)   |  |
|   | P264 - Wash skin thoroughly after handling<br>P271 - Use only outdoors or in a well-ventilated area<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection<br>P302+P352 - If on skin: Wash with plenty of soap and water  |
|   | P264 - Wash skin thoroughly after handling<br>P271 - Use only outdoors or in a well-ventilated area<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection<br>P302+P352 - If on skin: Wash with plenty of soap and water<br>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing   |
|   | P264 - Wash skin thoroughly after handling<br>P271 - Use only outdoors or in a well-ventilated area<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection<br>P302+P352 - If on skin: Wash with plenty of soap and water<br>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing<br>P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact   |
|   | P264 - Wash skin thoroughly after handling<br>P271 - Use only outdoors or in a well-ventilated area<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection<br>P302+P352 - If on skin: Wash with plenty of soap and water<br>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing   |
|   | <ul> <li>P264 - Wash skin thoroughly after handling</li> <li>P271 - Use only outdoors or in a well-ventilated area</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection</li> <li>P302+P352 - If on skin: Wash with plenty of soap and water</li> <li>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing</li> <li>P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</li> <li>P312 - Call a POISON CENTER or doctor/physician if you feel unwell</li> <li>P321 - Specific treatment (see supplemental first aid instructions on this label)</li> </ul>  |
|   | <ul> <li>P264 - Wash skin thoroughly after handling</li> <li>P271 - Use only outdoors or in a well-ventilated area</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection</li> <li>P302+P352 - If on skin: Wash with plenty of soap and water</li> <li>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing</li> <li>P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</li> <li>P312 - Call a POISON CENTER or doctor/physician if you feel unwell</li> <li>P321 - Specific treatment (see supplemental first aid instructions on this label)</li> <li>P332+P313 - If skin irritation occurs: Get medical advice/attention</li> </ul>   |
|   | <ul> <li>P264 - Wash skin thoroughly after handling</li> <li>P271 - Use only outdoors or in a well-ventilated area</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection</li> <li>P302+P352 - If on skin: Wash with plenty of soap and water</li> <li>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing</li> <li>P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</li> <li>P312 - Call a POISON CENTER or doctor/physician if you feel unwell</li> <li>P321 - Specific treatment (see supplemental first aid instructions on this label)</li> <li>P332+P313 - If skin irritation occurs: Get medical advice/attention</li> <li>P337+P313 - If eye irritation persists: Get medical advice/attention</li> </ul>   |
|   | <ul> <li>P264 - Wash skin thoroughly after handling</li> <li>P271 - Use only outdoors or in a well-ventilated area</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection</li> <li>P302+P352 - If on skin: Wash with plenty of soap and water</li> <li>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing</li> <li>P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</li> <li>P312 - Call a POISON CENTER or doctor/physician if you feel unwell</li> <li>P321 - Specific treatment (see supplemental first aid instructions on this label)</li> <li>P332+P313 - If skin irritation occurs: Get medical advice/attention</li> <li>P337+P313 - If eye irritation persists: Get medical advice/attention</li> <li>P362+P364 - Take off contaminated clothing and wash it before reuse</li> </ul>  |
|   | <ul> <li>P264 - Wash skin thoroughly after handling</li> <li>P271 - Use only outdoors or in a well-ventilated area</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection</li> <li>P302+P352 - If on skin: Wash with plenty of soap and water</li> <li>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing</li> <li>P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</li> <li>P312 - Call a POISON CENTER or doctor/physician if you feel unwell</li> <li>P321 - Specific treatment (see supplemental first aid instructions on this label)</li> <li>P332+P313 - If skin irritation occurs: Get medical advice/attention</li> <li>P362+P364 - Take off contaminated clothing and wash it before reuse</li> <li>P403+P233 - Store in a well-ventilated place. Keep container tightly closed</li> <li>P405 - Store locked up</li> </ul> |
|   | <ul> <li>P264 - Wash skin thoroughly after handling</li> <li>P271 - Use only outdoors or in a well-ventilated area</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection</li> <li>P302+P352 - If on skin: Wash with plenty of soap and water</li> <li>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing</li> <li>P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</li> <li>P312 - Call a POISON CENTER or doctor/physician if you feel unwell</li> <li>P332+P313 - If skin irritation occurs: Get medical advice/attention</li> <li>P337+P313 - If eye irritation persists: Get medical advice/attention</li> <li>P362+P364 - Take off contaminated clothing and wash it before reuse</li> <li>P403+P233 - Store in a well-ventilated place. Keep container tightly closed</li> </ul>  |

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

|  | ,,            | , 2012 / Rules and Regulations   |                   |   |
|--|---------------|--|-------------------|---|
| .3. Other hazards  |               |  |                   |   |
| lo additional information available<br>.4. Unknown acute toxicity (GHS US) |               |  |                   |   |
| .4. Unknown acute toxicity (GHS US) lot applicable                         |               |  |                   |   |
|  |               |  |                   |   |
| ECTION 3: Composition/informati  | on on ir      | gredients  |                   |   |
| .1. Substance<br>ubstance type   | · Mon         | o-constituent  |                   |   |
|  | . 10010       |  |                   |   |
| Name   |               | Product identifier   | <b>%</b>          | Classification (GHS-US)                                       |
| 2,4,5-Trifluorophenylacetic acid<br>(Main constituent)                     |               | (CAS No) 209995-38-0   | <= 100            | Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319<br>STOT SE 3, H335 |
| ull text of H-phrases: see section 16                                      |               |  |                   |   |
| .2. Mixture  |               |  |                   |   |
| lot applicable   |               |  |                   |   |
| ECTION 4: First aid measures   |               |  |                   |   |
| .1. Description of first aid measures                                      |               |  |                   |   |
| irst-aid measures general  |               | se of accident or if you feel unwell, seek<br>e possible). Move the affected personnel |                   |   |
| irst-aid measures after inhalation   | : Rem         | ove person to fresh air and keep comfort<br>ration. Get medical advice/attention.      | -                 |   |
| irst-aid measures after skin contact                                       | : Was         | n with plenty of soap and water. Get med   | ical advice/atter | ntion.  |
| irst-aid measures after eye contact  |               | ediately flush eyes thoroughly with water<br>ent and easy to do. Continue rinsing. Get |                   |   |
| irst-aid measures after ingestion  |               | OT induce vomiting. Never give anything<br>h out with water. Get medical advice/atte   |                   | unconscious person. Rinse                                     |
| .2. Most important symptoms and effe                                       | ects, both    | acute and delayed  |                   |   |
| ymptoms/injuries   |               | most important known symptoms and effe<br>and/or in section 11.                        | ects are describ  | ed in the labelling (see section                              |
| .3. Indication of any immediate medic                                      | al attentio   | n and special treatment needed   |                   |   |
| reat symptomatically.  |               |  |                   |   |
| ECTION 5: Firefighting measures  |               |  |                   |   |
| .1. Extinguishing media  |               |  |                   |   |
| uitable extinguishing media  |               | nol resistant foam. Carbon dioxide. Dry popriate for surrounding fire.                 | owder. Water sp   | oray. Use extinguishing media                                 |
| .2. Special hazards arising from the s                                     | ubstance      | or mixture   |                   |   |
| ire hazard   | : Ther        | mal decomposition generates: Carbon ox   | ides. Hydrogen    | fluoride.   |
| .3. Advice for firefighters  |               |  |                   |   |
| rotection during firefighting  |               | ot attempt to take action without suitable<br>to section 8: "Exposure controls/persona |                   | oment. For further information                                |
| ECTION 6: Accidental release mea   |               |  |                   |   |
| .1. Personal precautions, protective e                                     |               |  |                   |   |
| eneral measures  |               | uate unnecessary personnel. Ensure ade<br>he dust.                                     | equate air ventil | ation. Avoid raising dust. Do not                             |
| .1.1. For non-emergency personnel  |               |  |                   |   |
| mergency procedures  | : Only        | qualified personnel equipped with suitab   | e protective equ  | uipment may intervene.  |
| .1.2. For emergency responders   |               |  |                   |   |
| rotective equipment  |               | ot attempt to take action without suitable to section 8: "Exposure controls/persona    |                   | oment. For further information                                |
| .2. Environmental precautions  |               |  |                   |   |
| void release to the environment. Notify author                             | rities if pro | duct enters sewers or public waters.   |                   |   |
| .3. Methods and material for containn                                      | nent and c    | leaning up   |                   |   |
| lethods for cleaning up  | : Swee        | ep or shovel spills into appropriate contain   | ner for disposal. | Minimize generation of dust.                                  |

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Other information                         | : For disposal of solid materials or residues refer to section 13 : "Disposal considerations".   |
|---|--|
| 6.4. Reference to other sections          |  |
| No additional information available       |  |
| SECTION 7: Handling and storage           |  |
| 7.1. Precautions for safe handling        |  |
| Precautions for safe handling             | Ensure good ventilation of the work station. Do not breathe dust. Avoid raising dust. Wear personal protective equipment. Avoid contact with skin and eyes.                  |
| Hygiene measures                          | : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| 7.2. Conditions for safe storage, include | ing any incompatibilities  |
| Storage conditions                        | : Keep container tightly closed.   |
| Incompatible materials                    | : Refer to Section 10 on Incompatible Materials.   |
| Storage area                              | : Store in dry, cool, well-ventilated area.  |

| SECTION 8: Exposure controls/personal protection |                               |   |
|--|-------------------------------|---|
| 8.1.   | Control parameters            |   |
| No add   | itional information available |   |
|  |                               |   |
| 8.2.   | Exposure controls             |   |
| Approp   | riate engineering controls    | <ul> <li>Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers<br/>should be available in the immediate vicinity of any potential exposure.</li> </ul> |
| Hand p   | rotection                     | : Protective gloves.  |
| Eye pro  | otection                      | : Chemical goggles or safety glasses. Face shield.  |
| Skin ar  | d body protection             | : Wear suitable protective clothing.  |
| Respira  | atory protection              | : In case of insufficient ventilation, wear suitable respiratory equipment.   |

## **SECTION 9: Physical and chemical properties**

| 9.1. Information on basic physical and      | d chemical properties |
|---|-----------------------|
| Physical state                              | : Solid               |
| Color                                       | : No data available   |
| Odor  | : No data available   |
| Odor threshold                              | : No data available   |
| рН  | : No data available   |
| Melting point                               | : 121 - 125 °C        |
| Freezing point                              | : No data available   |
| Boiling point                               | : No data available   |
| Flash point                                 | : > 110 ℃             |
| Relative evaporation rate (butyl acetate=1) | : No data available   |
| Flammability (solid, gas)                   | : No data available   |
| Explosion limits                            | : No data available   |
| Explosive properties                        | : No data available   |
| Oxidizing properties                        | : No data available   |
| Vapor pressure                              | : No data available   |
| Relative density                            | : No data available   |
| Relative vapor density at 20 °C             | : No data available   |
| Molecular mass                              | : 190.12 g/mol        |
| Solubility                                  | : No data available   |
| Log Pow                                     | : No data available   |
| Auto-ignition temperature                   | : No data available   |
| Decomposition temperature                   | : No data available   |
| Viscosity                                   | : No data available   |
| Viscosity, kinematic                        | : No data available   |
| Viscosity, dynamic                          | : No data available   |
|   |                       |

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| 9.2.   | Other information                   |  |  |
|--|-------------------------------------|--|--|
| No addit   | No additional information available |  |  |
| SECT   | ON 10: Stability and reactivity     |  |  |
| 10.1.  | Reactivity                          |  |  |
| No additional information available                              |                                     |  |  |
| 10.2.  | Chemical stability                  |  |  |
| The product is stable at normal handling and storage conditions. |                                     |  |  |
| 10.3.  | Possibility of hazardous reactions  |  |  |
| No additional information available                              |                                     |  |  |
| 10.4.  | Conditions to avoid                 |  |  |
| No additional information available                              |                                     |  |  |
| 10.5.  | Incompatible materials              |  |  |
| Strong bases. Strong oxidizing agents.                           |                                     |  |  |
| 10.6.  | Hazardous decomposition products    |  |  |

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products in case of fire, see Section 5.

| SECTION 11: Toxicological information |                                      |  |  |
|---------------------------------------|--------------------------------------|--|--|
| 11.1.                                 | Information on toxicological effects |  |  |
|                                       |                                      |  |  |

| Acute toxicity                                     | : Not classified                    |
|--|-------------------------------------|
| Skin corrosion/irritation                          | : Causes skin irritation.           |
| Serious eye damage/irritation                      | : Causes serious eye irritation.    |
| Respiratory or skin sensitization                  | : Not classified                    |
| Germ cell mutagenicity                             | : Not classified                    |
| Carcinogenicity                                    | : Not classified                    |
| Reproductive toxicity                              | : Not classified                    |
| Specific target organ toxicity (single exposure)   | : May cause respiratory irritation. |
| Specific target organ toxicity (repeated exposure) | : Not classified                    |
| Aspiration hazard                                  | : Not classified                    |

| SECTION 12: Ecological information  |  |  |  |
|-------------------------------------|--|--|--|
| 12.1. Toxicity                      |  |  |  |
| No additional information available |  |  |  |
| 12.2. Persistence and degradability |  |  |  |
| No additional information available |  |  |  |
| 12.3. Bioaccumulative potential     |  |  |  |
| No additional information available |  |  |  |
| 12.4. Mobility in soil              |  |  |  |
| No additional information available |  |  |  |
| 12.5. Other adverse effects         |  |  |  |
| No additional information available |  |  |  |

| SECTION 13: Disposal consideratio | ns  |
|-----------------------------------|---|
| 3.1. Waste treatment methods      |   |
| Vaste treatment methods           | : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.   |
| Vaste disposal recommendations    | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### **SECTION 14: Transport information**

#### **Department of Transportation (DOT)**

In accordance with DOT

Not regulated for transport

#### TDG

No additional information available

#### Transport by sea

No additional information available

#### Air transport

No additional information available

#### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

2,4,5-Trifluorophenylacetic acid

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS No 209995-38-0

#### **15.2. International regulations**

#### CANADA

No additional information available

#### EU-Regulations

#### 2,4,5-Trifluorophenylacetic acid (209995-38-0)

Listed on ELINCS (European List of Notified Chemical Substances)

#### National regulations

#### 2,4,5-Trifluorophenylacetic acid (209995-38-0)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

#### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

#### SECTION 16: Other information

#### Full text of H-phrases:

| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A               |
|---------------|---|
| Skin Irrit. 2 | Skin corrosion/irritation Category 2                        |
| STOT SE 3     | Specific target organ toxicity (single exposure) Category 3 |
| H315          | Causes skin irritation                                      |
| H319          | Causes serious eye irritation                               |
| H335          | May cause respiratory irritation                            |

NFPA health hazard

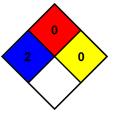
NFPA fire hazard

NFPA reactivity

: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

: 0 - Materials that will not burn.

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



100%

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| HMIS III Rating |   |
|-----------------|---|
| Health          | : 2 Moderate Hazard - Temporary or minor injury may occur   |
| Flammability    | : 0 Minimal Hazard - Materials that will not burn   |
| Physical        | : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives. |

SDS US (GHS HazCom 2012)

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is offered solely for your consideration, investigation, and verification. It does not represent any guarantee of the properties of the product nor that the hazard precautions or procedures described are the only ones which exist. SynQuest shall not be held liable or any damage resulting from handling or from contact with the above product.