

# 4-Ethoxy-2,3-difluorobenzaldehyde

Safety Data Sheet 2615340 according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 11/18/2015 Version: 1.0

| SECTION 1: Identification  |  |
|--|--|
| 1.1. Identification  |  |
| Product form   | : Substance  |
| Substance name   | : 4-Ethoxy-2,3-difluorobenzaldehyde  |
| CAS No   | : 126162-95-6  |
| Product code   | : 2615-3-40  |
| Formula  | : C9H8F2O2   |
| Other means of identification  | : MFCD09258700   |
| 1.2. Relevant identified uses of the subst   | ance 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 safety d   | ata sheet  |
| SynQuest Laboratories, Inc.<br>P.O. Box 309<br>Alachua, FL 32615 - United States of America<br>T (386) 462-0788 - F (386) 462-7097<br>info@synquestlabs.com - www.synquestlabs.com |  |
| 1.4. Emergency telephone number  |  |
| Emergency number   | : (844) 523-4086 (3E Company - Account 10069)  |
| SECTION 2: Hazard(s) identification  |  |
| 2.1. Classification of the substance or mi   | xture  |
| Classification (GHS-US)  |  |
| Skin Irrit. 2H315 - Causes skin irritationEye Irrit. 2AH319 - Causes serious eye irritationSTOT SE 3H335 - May cause respiratory irritationFull text of H-phrases: see section 16  |  |
| 2.2. Label elements  |  |
| GHS-US labeling  |  |
| Hazard pictograms (GHS-US)   | GHS07  |
| Signal word (GHS-US)   | : Warning  |
| Hazard statements (GHS-US)   | : H315 - Causes skin irritation<br>H319 - Causes serious eye irritation<br>H335 - May cause respiratory irritation   |
| Precautionary statements (GHS-US)  | <ul> <li>P261 - Avoid breathing fumes, mist, spray, vapors</li> <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</li> <li>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> <li>P501 - Dispose of contents/container to an approved waste disposal plant</li> </ul> |

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|---|----------------|---|-----------------------------|---|
| 2.3. Other hazards                                      |                |   |                             |   |
| No additional information available                     |                |   |                             |   |
| 2.4. Unknown acute toxicity (GHS US)                    |                |   |                             |   |
| Not applicable  |                |   |                             |   |
| SECTION 3: Composition/informati                        | on on ir       | gredients   |                             |   |
| 3.1. Substance  |                |   |                             |   |
| Substance type  | : Mono         | o-constituent   |                             |   |
| Name  |                | Product identifier  | %                           | Classification (GHS-US)                                       |
| 4-Ethoxy-2,3-difluorobenzaldehyde<br>(Main constituent) |                | (CAS No) 126162-95-6  | <= 100                      | Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319<br>STOT SE 3, H335 |
| Full text of H-phrases: see section 16                  |                | 1   | 1                           |   |
| 3.2. Mixture  |                |   |                             |   |
| Not applicable  |                |   |                             |   |
| SECTION 4: First aid measures                           |                |   |                             |   |
| 4.1. Description of first aid measures                  |                |   |                             |   |
| First-aid measures general                              |                | se of accident or if you feel unwell, seek  |                             |   |
|   |                | e possible). Move the affected personnel  | ,                           |   |
| First-aid measures after inhalation                     |                | ove person to fresh air and keep comfort ration. Get medical advice/attention.              | able for breathir           | ng. If not breathing, give artificial                         |
| First-aid measures after skin contact                   |                | h with plenty of soap and water. Get med  |                             |   |
| First-aid measures after eye contact                    |                | ediately flush eyes thoroughly with water<br>ent and easy to do. Continue rinsing. Get      |                             |   |
| First-aid measures after ingestion                      | : Do N<br>mout | OT induce vomiting. Never give anything<br>h out with water. Get medical advice/atte        | y by mouth to an<br>ention. | unconscious person. Rinse                                     |
| 4.2. Most important symptoms and effe                   | ects, both     | acute and delayed   |                             |   |
| Symptoms/injuries                                       |                | most important known symptoms and effe  | ects are describ            | ed in the labelling (see section                              |
| 4.3. Indication of any immediate medic                  | al attentic    | on and special treatment needed   |                             |   |
| Treat symptomatically.                                  |                |   |                             |   |
|   |                |   |                             |   |
| SECTION 5: Firefighting measures                        |                |   |                             |   |
| 5.1. Extinguishing media                                |                | al registert form. Carbon disvide. Drug   | aundan Matan an             |   |
| Suitable extinguishing media                            |                | nol resistant foam. Carbon dioxide. Dry p<br>opriate for surrounding fire.                  | owder. vvater sp            | bray. Use extinguishing media                                 |
| 5.2. Special hazards arising from the s                 | ubstance       | or mixture  |                             |   |
| Fire hazard   | : Ther         | mal decomposition generates: Carbon ox  | kides. Hydrogen             | fluoride.   |
| Explosion hazard  |                | of explosion if heated under confinement<br>ainers. May form flammable/explosive va         |                             | ay or fog for cooling exposed                                 |
| 5.3. Advice for firefighters                            |                |   |                             |   |
| Firefighting instructions                               | : In ca        | se of fire: Evacuate area. Fight fire remo  | tely due to the ri          | sk of explosion.  |
| Protection during firefighting                          |                | r gas tight chemically protective clothing i<br>ratus. For further information refer to sec |                             |   |
| SECTION 6: Accidental release mea                       |                |   |                             |   |
| 6.1. Personal precautions, protective e                 |                |   |                             |   |
| General measures  |                | uate unnecessary personnel. Ensure ade<br>r or spray.                                       | equate air ventil           | ation. Do not breathe gas, fumes,                             |
| 6.1.1. For non-emergency personnel                      |                |   |                             |   |
| Emergency procedures                                    | : Only         | qualified personnel equipped with suitab  | le protective equ           | uipment may intervene.  |
|   | ,              | · · · ·   |                             |   |
| 6.1.2. For emergency responders                         |                | ot ottompt to toke patient with suit suits in   | n roto otivis - s s · ·     | mont For further information                                  |
| Protective equipment                                    |                | ot attempt to take action without suitable<br>to section 8: "Exposure controls/persona      |                             | ment. For further information                                 |
|   |                |   |                             |   |

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| Emergency procedures  | : Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level. Consider the risk of potentially explosive atmospheres. Eliminate every possible source of ignition.  |  |  |
|---|---|--|--|
| 6.2. Environmental precautions  |   |  |  |
| Avoid release to the environment. Notify authorities if product enters sewers or public waters. |   |  |  |
| 6.3. Methods and material for containmen  | it and cleaning up  |  |  |
| For containment   | : Stop leak if safe to do so. Dike for recovery or absorb with appropriate material.  |  |  |
| Methods for cleaning up   | : Take up large spills with pump or vacuum and finish with dry chemical absorbent. Use explosion-proof equipment. Take up small spills with dry chemical absorbent. Sweep or shovel spills into appropriate container for disposal. Ventilate area.   |  |  |
| 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  |   |  |  |
| Additional hazards when processed   | : Handle empty containers with care because residual vapors are flammable.  |  |  |
| Precautions for safe handling   | : Do not handle until all safety precautions have been read and understood. Ensure good ventilation of the work station. Do not breathe fumes, mist, spray, vapors. Wear personal protective equipment. Avoid contact with skin and eyes. Keep away from ignition sources (including static discharges). Proper grounding procedures to avoid static electricity should be followed. Use only non-sparking tools. |  |  |
| 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, including   | g any incompatibilities   |  |  |
| Technical measures  | : Comply with applicable regulations.   |  |  |
| Storage conditions  | : Keep container closed when not in use. Keep away from ignition sources. Air sensitive. Keep contents under inert gas.   |  |  |
| 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 additional information available

| 8.2. Exposure contro       |   |
|----------------------------|---|
| Appropriate engineering co | <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 protection            | : Protective gloves. 29 CFR 1910.138: Hand Protection.  |
| Eye protection             | : Chemical goggles or safety glasses. Face shield. 29 CFR 1910.133: Eye and Face Protection.  |
| Skin and body protection   | : Wear suitable protective clothing.  |
| Respiratory protection     | : In case of inadequate ventilation wear respiratory protection. 29 CFR 1910.134: Respiratory<br>Protection.  |
| Other information          | : Safety shoes. 29 CFR 1910.136: Foot Protection.   |

# SECTION 9: Physical and chemical properties

| 9.1.    | Information on basic phys | sical and chemical properties |
|---------|---------------------------|-------------------------------|
| Physic  | cal state                 | : Liquid                      |
| Color   |                           | : No data available           |
| Odor    |                           | : No data available           |
| Odor t  | hreshold                  | : No data available           |
| pН      |                           | : No data available           |
| Melting | g point                   | : No data available           |
| Freezi  | ng point                  | : No data available           |
| Boiling | g point                   | : No data available           |
| Flash   | point                     | : No data available           |
|         |                           |                               |

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| 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   | : 186.16 g/mol   |
| Molecular mass<br>Solubility   | : 186.16 g/mol<br>: No data available  |
|  | Ũ  |
| Solubility   | : No data available  |
| Solubility<br>Log Pow  | : No data available<br>: No data available   |
| Solubility<br>Log Pow<br>Auto-ignition temperature   | : No data available<br>: No data available<br>: No data available  |
| Solubility<br>Log Pow<br>Auto-ignition temperature<br>Decomposition temperature              | <ul> <li>No data available</li> </ul>                            |
| Solubility<br>Log Pow<br>Auto-ignition temperature<br>Decomposition temperature<br>Viscosity | <ul> <li>No data available</li> </ul> |

#### 9.2. **Other information**

No additional information available

| NU auui |  |
|---------|--|
| SECT    | ION 10: Stability and reactivity   |
| 10.1.   | Reactivity   |
| No addi | itional information available  |
| 10.2.   | Chemical stability   |
| The pro | duct is stable at normal handling and storage conditions.  |
| 10.3.   | Possibility of hazardous reactions   |
| No addi | tional information available   |
| 10.4.   | Conditions to avoid  |
| No addi | tional information available   |
| 10.5.   | Incompatible materials   |
| Strong  | oxidizing agents.  |
| 10.6.   | Hazardous decomposition products   |
|         | normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products in case of escition 5. |

| SECTI | N 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                      |                 |                 |     |
| 12.1. TOXICITY                      |                 |                 |     |
| No additional information available |                 |                 |     |
|                                     |                 |                 |     |
| 12/06/2016                          | EN (English US) | SDS ID: 2615340 | 4/6 |

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| 12.2.                               | Persistence and degradability       |  |  |  |
|-------------------------------------|-------------------------------------|--|--|--|
| No addit                            | No additional information available |  |  |  |
| 12.3.                               | Bioaccumulative potential           |  |  |  |
| No addit                            | tional information available        |  |  |  |
| 12.4.                               | Mobility in soil                    |  |  |  |
| No additional information available |                                     |  |  |  |
| 12.5.                               | Other adverse effects               |  |  |  |
| No addit                            | tional information available        |  |  |  |

| <b>SECTION 13: Disposal consideration</b> | ons   |
|---|---|
| 13.1. Waste treatment methods             |   |
| Waste treatment methods                   | : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.   |
| Waste disposal recommendations            | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Additional information                    | : Recycle the material as far as possible.  |
| SECTION 14: Transport information         | 1   |

#### 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:

| 4-Ethoxy-2,3-difluorobenzaldehyde | CAS No 126162-95-6 | 100% |
|-----------------------------------|--------------------|------|
|                                   |                    |      |

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.

#### 15.2. International regulations

**CANADA** 

No additional information available

EU-Regulations No additional information available

### **National regulations**

No additional information available

#### 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**

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| 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                                 | : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.                                      |  |
| NFPA fire hazard                                   | : 1 - Must be preheated before ignition can occur.  |  |
| NFPA reactivity                                    | : 0 - Normally stable, even under fire exposure conditions,<br>and are not reactive with water.   |  |
| HMIS III Rating                                    |   |  |
| Health   | : 1 Slight Hazard - Irritation or minor reversible injury possible  |  |
| Flammability                                       | : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)            |  |
| 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)                           |   |  |

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