

SAFETY DATA SHEET

Revision Date 23-Jan-2018

Revision Number 3

1. Identification Tris(3-methoxyphenyl)phosphine

Product Name

AC378860000; AC378860010; AC378860050

CAS-No Synonyms

Cat No. :

29949-84-6 Tris(m-anisyl)phosphine

Recommended Use Uses advised against Laboratory chemicals. Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

<u>Company</u> Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100

Acros Organics One Reagent Lane Fair Lawn, NJ 07410

Emergency Telephone Number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe:** +32 14 57 52 99 **CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe:**001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Acute oral toxicity | Category 4 |
|--|------------|
| Skin Corrosion/irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Respiratory system. | |

Label Elements

Signal Word Warning

Hazard Statements

Harmful if swallowed Causes skin irritation Causes serious eye irritation May cause respiratory irritation



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

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

Avoid breathing dust/fume/gas/mist/vapors/sprav

Use only outdoors or in a well-ventilated area

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell

Skin

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Eves

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Storage

Store in a well-ventilated place. Keep container tightly closed

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|--------------------------------|------------|----------|
| Tris(3-methoxyphenyl)phosphine | 29949-84-6 | 97 |

| 4. First-aid measures | |
|-------------------------------|---|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Skin Contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention. |
| Inhalation | Remove from exposure, lie down. Move to fresh air. If not breathing, give artificial respiration. Obtain medical attention. |
| Ingestion | Clean mouth with water. Get medical attention. |
| Most important symptoms and | No information available. |
| effects Notes to Physician | Treat symptomatically |

| | | ng measures | |
|--|--|--|--|
| uitable Extinguishing Media | Water spray. Carbon dioxic | le (CO 2). Dry chemical. Chemi | cal toam. |
| Insuitable Extinguishing Media | No information available | | |
| Flash Point | No information available | | |
| Method - | No information available | | |
| Autoignition Temperature | Not applicable | | |
| Upper | No data available | | |
| Lower | No data available | | |
| Sensitivity to Mechanical Imp Sensitivity to Static Discharg | | | |
| pecific Hazards Arising from the | | ignition. | |
| lazardous Combustion Products Carbon monoxide (CO) Carbon dio Protective Equipment and Precat As in any fire, wear self-contained b Protective gear. | xide (CO ₂) Oxides of phosphoru utions for Firefighters | | red or equivalent) and full |
| Health 2 | Flammability 1 | Instability 0 | Physical hazards N/A |
| | | | |
| | 6 Accidental rel | ease measures | |
| ersonal Precautions | 6. Accidental rel | | ipment. |
| | | n. Use personal protective equ | ipment. |
| invironmental Precautions Nethods for Containment and Cl | Ensure adequate ventilatio See Section 12 for addition | n. Use personal protective equ al ecological information. | |
| invironmental Precautions lethods for Containment and Cl lp | Ensure adequate ventilatio See Section 12 for addition ean Sweep up or vacuum up sp 7. Handling a | n. Use personal protective equ al ecological information. billage and collect in suitable co and storage | |
| nvironmental Precautions lethods for Containment and Cl p | Ensure adequate ventilatio See Section 12 for addition ean Sweep up or vacuum up sp 7. Handling a | n. Use personal protective equ al ecological information. village and collect in suitable co | |
| invironmental Precautions lethods for Containment and Cl p landling | Ensure adequate ventilatio See Section 12 for addition ean Sweep up or vacuum up sp 7. Handling a Avoid contact with skin and | n. Use personal protective equ al ecological information. billage and collect in suitable co and storage | ontainer for disposal. |
| | Ensure adequate ventilatio See Section 12 for addition ean Sweep up or vacuum up sp 7. Handling a Avoid contact with skin and Keep in a dry, cool and wel Exposure controls | n. Use personal protective equ al ecological information. billage and collect in suitable co and storage I eyes. Do not breathe dust. I-ventilated place. Keep contai | ner tightly closed. |
| Invironmental Precautions Nethods for Containment and Clu Ip Iandling Storage | Ensure adequate ventilatio See Section 12 for addition ean Sweep up or vacuum up sp 7. Handling a Avoid contact with skin and Keep in a dry, cool and wel Exposure controls This product does not conta | n. Use personal protective equ al ecological information. willage and collect in suitable co and storage I eyes. Do not breathe dust. | ner tightly closed. |
| nvironmental Precautions lethods for Containment and Cle p andling torage <u>8.</u> xposure Guidelines | Ensure adequate ventilation See Section 12 for addition ean Sweep up or vacuum up sp 7. Handling a Avoid contact with skin and Keep in a dry, cool and wel Exposure controls of This product does not conta limitsestablished by the reg Ensure adequate ventilation | n. Use personal protective equ al ecological information. willage and collect in suitable co and storage I eyes. Do not breathe dust. I-ventilated place. Keep contai <u>/ personal protectio</u> ain any hazardous materials w jion specific regulatory bodies. | ner tightly closed. |
| Invironmental Precautions Nethods for Containment and Clup Iandling Storage | Ensure adequate ventilation See Section 12 for addition ean Sweep up or vacuum up sp 7. Handling a Avoid contact with skin and Keep in a dry, cool and wel Exposure controls of This product does not conta limitsestablished by the reg Ensure adequate ventilation | n. Use personal protective equ al ecological information. billage and collect in suitable co and storage I eyes. Do not breathe dust. I-ventilated place. Keep contai / personal protection ain any hazardous materials w jion specific regulatory bodies. | ner tightly closed. |
| Invironmental Precautions Iethods for Containment and Clup Iandling torage 8. xposure Guidelines ngineering Measures | Ensure adequate ventilation See Section 12 for addition ean Sweep up or vacuum up sp 7. Handling a Avoid contact with skin and Keep in a dry, cool and wel Exposure controls of This product does not conta limitsestablished by the reg Ensure adequate ventilation and safety showers are clo Wear appropriate protective | n. Use personal protective equal ecological information. billage and collect in suitable contrained and storage and storage I eyes. Do not breathe dust. I-ventilated place. Keep contained and place. Keep contained place and protectioned and protection. (personal protectioned areas set to the workstation location. e eyeglasses or chemical safet | ner tightly closed. On ith occupational exposure |

Respiratory Protection

No protective equipment is needed under normal use conditions.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

| Physical State | Powder Solid |
|--|---------------------------------|
| Appearance | Off-white |
| Odor | No information available |
| Odor Threshold | No information available |
| рН | No information available |
| Melting Point/Range | 111 - 114 °C / 231.8 - 237.2 °F |
| Boiling Point/Range | No information available |
| Flash Point | No information available |
| Evaporation Rate | Not applicable |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | Not applicable |
| Specific Gravity | No information available |
| Solubility | No information available |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | Not applicable |
| Decomposition Temperature | No information available |
| Viscosity | Not applicable |
| Molecular Formula | C21 H21 O3 P |
| Molecular Weight | 352.37 |
| | |

10. Stability and reactivity

| Reactive Hazard | None known, based on information available |
|---------------------------------|--|
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Incompatible products. |
| Incompatible Materials | Strong oxidizing agents, Halogens |
| Hazardous Decomposition Product | s Carbon monoxide (CO), Carbon dioxide (CO ₂), Oxides of phosphorus |
| Hazardous Polymerization | No information available. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Acute Toxicity

| Product Information Component Information Toxicologically Synergistic No information available Products Delayed and immediate effects as well as chronic effects from short and long-term exposure | |
|--|--------------------------|
| Irritation | No information available |
| Sensitization | No information available |

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|--|-----------------|---|---------------------|---------------------|----------------------|-------------|
| Tris(3-methoxyphenyl) | 29949-84-6 | Not listed | Not listed | Not listed | Not listed | Not listed |
| phosphine | | No information or | | | | |
| Mutagenic Effects | | No information ava | allable | | | |
| Reproductive Effect | S | No information ava | ailable. | | | |
| Developmental Effe | cts | No information ava | ailable. | | | |
| Teratogenicity | | No information ava | ailable. | | | |
| STOT - single expos STOT - repeated exp | | Respiratory syster None known | n | | | |
| Aspiration hazard | | No information ava | ailable | | | |
| Symptoms / effects delayed | ,both acute and | No information ava | ailable | | | |
| Endocrine Disrupto | r Information | No information ava | ailable | | | |
| Other Adverse Effect | cts | The toxicological p | properties have not | been fully investig | gated. | |
| | | 12. Ecol | ogical infor | mation | | |
| Ecotoxicity Do not empty into dra | ains. | | | | | |
| Persistence and De | gradability | No information ava | ailable | | | |
| Bioaccumulation/ A | ccumulation | No information ava | ailable. | | | |
| Mobility | | No information ava | ailable. | | | |
| | | 13. Dispo | sal conside | erations | | |
| Waste Disposal Met | hods | Chemical waste g hazardous waste. national hazardou | Chemical waste g | enerators must als | so consult local, re | gional, and |
| | | 14. Trar | nsport inform | mation | | |
| DOT | | Not regulated | | | | |
| TDG | | Not regulated | | | | |
| IATA | | Not regulated | | | | |

International Inventories

Legend:

X - Listed

IMDG/IMO

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA. F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

15. Regulatory information

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

Not regulated

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

| TSCA 12(b) | Not applicable |
|---|--|
| SARA 313 | Not applicable |
| SARA 311/312 Hazard Categories | See section 2 for more information |
| CWA (Clean Water Act) | Not applicable |
| Clean Air Act | Not applicable |
| OSHA Occupational Safety and Healt Not applicable | th Administration |
| CERCLA | Not applicable |
| California Proposition 65 | This product does not contain any Proposition 65 chemicals |
| U.S. State Right-to-Know Regulations | Not applicable |

U.S. Department of Transportation

| Reportable Quantity (RQ): | Ν |
|-----------------------------|---|
| DOT Marine Pollutant | Ν |
| DOT Severe Marine Pollutant | Ν |

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

| Mexico | - | Grade |
|----------|---|-------|
| MICAICO. | | orauc |

No information available

| | 16. Other information |
|------------------|---|
| | |
| Prepared By | Regulatory Affairs |
| | Thermo Fisher Scientific |
| | Email: EMSDS.RA@thermofisher.com |
| Revision Date | 23-Jan-2018 |
| Print Date | 23-Jan-2018 |
| Revision Summary | This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). |

Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

End of SDS