# Chemical Safety Data Sheet MSDS / SDS

# TRIS[3,5-BIS(TRIFLUOROMETHYL)PHENYL]PHOSPHINE

Revision Date:2023-04-30 Revision Number:1

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

# **Product identifier**

Product name	: TRIS[3,5-BIS(TRIFLUOROMETHYL)PHENYL]PHOSPHINE					
CBnumber	: CB5126244					
CAS	: 175136-62-6					
Synonyms	: Tris [3, 5-bis (trifluoromethyl) phenyl] phosphine, Tris (3, 5-bis (trifluoromethyl)					
Relevant identified uses of the substance or mixture and uses advised against						
Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.					
Uses advised against	: none					
Company Identification						
Company	: Chemicalbook					
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing					
Telephone	: 400-158-6606					

# SECTION 2: Hazards identification

# Classification of the substance or mixture

Skin irritation, Category 2 Eye irritation, Category 2 Specific target organ toxicity – single exposure, Category 3

### Label elements

### Pictogram(s)

Signal word

Warning

#### Hazard statement(s)

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

### Precautionary statement(s)

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

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. Chemical Book

#### Continuerinsing.

P405 Store locked up.

### Prevention

P264 Wash ... thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

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

P271 Use only outdoors or in a well-ventilated area.

#### Response

P302+P352 IF ON SKIN: Wash with plenty of water/...

P321 Specific treatment (see ... on this label).

P332+P317 If skin irritation occurs: Get medical help.

P362+P364 Take off contaminated clothing and wash it before reuse.

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

#### rinsing.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P319 Get medical help if you feel unwell.

### Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

#### Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### Other hazards

no data available

# SECTION 3: Composition/information on ingredients

### Substance

: TRIS[3,5-BIS(TRIFLUOROMETHYL)PHENYL]PHOSPHINE
: Tris[3,5-bis(trifluoromethyl)phenyl]phosphine,Tris(3,5-bis(trifluoromethyl)
: 175136-62-6
: C24H9F18P
: 670.27

# SECTION 4: First aid measures

### Description of first aid measures

### lf inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

#### Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

### Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

#### **Following ingestion**

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

### Most important symptoms and effects, both acute and delayed

no data available

### Indication of any immediate medical attention and special treatment needed

no data available

# **SECTION 5: Firefighting measures**

### **Extinguishing media**

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

### **Specific Hazards Arising from the Chemical**

no data available

### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### **NFPA 704**



	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. <u>diethyl</u> <u>ether</u> , ammonium phosphate, iodine)
	FIRE	1	Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. <u>mineral oil</u> , ammonia)
	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, N2)
	SPEC.		
	HAZ.		

# SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### **Environmental precautions**

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

### Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use sparkproof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

# SECTION 7: Handling and storage

### Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

# SECTION 8: Exposure controls/personal protection

### **Control parameters**

#### **Occupational Exposure limit values**

no data available

Biological limit values

no data available

### **Exposure controls**

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the riskelimination area.

### Individual protection measures

### Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

#### Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### **Respiratory protection**

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

### Thermal hazards

no data available

# SECTION 9: Physical and chemical properties

# Information on basic physicochemical properties

Odourno data availableOdourno data availableMelting point or initial boiling point and boiling range130°C/0.5mmHg(iti.)Flammabilityno data availableLower and upper explosionno data availableIimit/flammability limitno data availableFlash point10°C(lit.)Auto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	Physical state	yellow-brown
Melting point/freezing point-46°C(lit.)Boiling point or initial boiling point and130°C/0.5mmHg(lit.)boiling rangeno data availableFlammabilityno data availableLower and upper explosionno data availablelimit/flammability limit10°C(lit.)Flash point10°C(lit.)Auto-ignition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	Colour	yellow-brown
Boiling point or initial boiling point and   130°C/0.5mmHg(lit.)     boiling range   no data available     Flammability   no data available     Lower and upper explosion   no data available     limit/flammability limit   no data available     Flash point   10°C(lit.)     Auto-ignition temperature   no data available     pH   no data available     Solubility   no data available     Partition coefficient n-octanol/water   no data available     Vapour pressure   4.88E-06mmHg at 25°C     Density and/or relative density   no data available     Relative vapour density   no data available	Odour	no data available
boiling rangeFlammabilityno data availableLower and upper explosionno data availablelimit/flammability limitFlash point10°C(lit.)Auto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	Melting point/freezing point	-46°C(lit.)
Flammabilityno data availableLower and upper explosionno data availablelimit/flammability limitFlash point10°C(lit.)Auto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	Boiling point or initial boiling point and	130°C/0.5mmHg(lit.)
Lower and upper explosionno data availablelimit/flammability limitFlash point10°C(lit.)Auto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	boiling range	
Iimit/flammability limitFlash point10°C(lit.)Auto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	Flammability	no data available
Flash point10°C(lit.)Auto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	Lower and upper explosion	no data available
Auto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	limit/flammability limit	
Decomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	Flash point	10°C(lit.)
pHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	Auto-ignition temperature	no data available
Kinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	Decomposition temperature	no data available
Solubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure4.88E-06mmHg at 25°CDensity and/or relative densityno data availableRelative vapour densityno data available	рН	no data available
Partition coefficient n-octanol/water   no data available     Vapour pressure   4.88E-06mmHg at 25°C     Density and/or relative density   no data available     Relative vapour density   no data available	Kinematic viscosity	no data available
Vapour pressure   4.88E-06mmHg at 25°C     Density and/or relative density   no data available     Relative vapour density   no data available	Solubility	no data available
Density and/or relative density no data available   Relative vapour density no data available	Partition coefficient n-octanol/water	no data available
Relative vapour density no data available	Vapour pressure	4.88E-06mmHg at 25°C
	Density and/or relative density	no data available
Particle characteristics no data available	Relative vapour density	no data available
	Particle characteristics	no data available

# SECTION 10: Stability and reactivity

# Reactivity

no data available

# **Chemical stability**

no data available

# Possibility of hazardous reactions

no data available

## Conditions to avoid

### Incompatible materials

no data available

### Hazardous decomposition products

no data available

# SECTION 11: Toxicological information

### Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

#### Skin corrosion/irritation

no data available

# Serious eye damage/irritation

no data available

# Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

#### Carcinogenicity

no data available

### **Reproductive toxicity**

no data available

### STOT-single exposure

no data available

### STOT-repeated exposure

no data available

### Aspiration hazard

no data available

# **SECTION 12: Ecological information**

### Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

### Persistence and degradability

no data available

### **Bioaccumulative potential**

no data available

# Mobility in soil

no data available

### Other adverse effects

no data available

# SECTION 13: Disposal considerations

### **Disposal methods**

#### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

# **SECTION 14: Transport information**

### **UN Number**

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

### **UN Proper Shipping Name**

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

### Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) Chemical Book IATA: Not dangerous goods. (For reference only, please check.)

### Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

### Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

# Special precautions for user

no data available

### Transport in bulk according to IMO instruments

no data available

# **SECTION 15: Regulatory information**

### Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS) Not Listed. **EC Inventory** Not Listed. United States Toxic Substances Control Act (TSCA) Inventory Not Listed. China Catalog of Hazardous chemicals 2015 Not Listed. New Zealand Inventory of Chemicals (NZIoC) Not Listed. PICCS Not Listed. Vietnam National Chemical Inventory Not Listed. IECSC Not Listed. Korea Existing Chemicals List (KECL) Not Listed.

# **SECTION 16: Other information**

### Abbreviations and acronyms

CAS: Chemical Abstracts Service ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulation concerning the International Carriage of Dangerous Goods by Rail IMDG: International Maritime Dangerous Goods IATA: International Air Transportation Association TWA: Time Weighted Average STEL: Short term exposure limit LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

#### References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?

pageID=0&request\_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

#### ECHA - European Chemicals Agency, website: https://echa.europa.eu/

**Disclaimer:** 

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.