Chemical Safety Data Sheet MSDS / SDS

(R)-(-)-1-[(S)-2-(DI(3,5-DIMETHYL-4-METHOXYPHENYL)PHOSPHINO)FERROCENYL]ETHYLDICYCLOHEXYLPHOSPHINE

Revision Date:2025-07-19 Revision Number:1

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

Product identifier

Product name	: (R)-(-)-1-[(S)-2-(DI(3,5-DIMETHYL-4-			
	METHOXYPHENYL)PHOSPHINO)FERROCENYL]ETHYLDICYCLOHEXYLPHOSPHINE			
CBnumber	: CB4435705			
CAS	: 360048-63-1			
Synonyms	: (R)-(-)-1-[(S)-2-(di(3,5-dimethyl-4-			
	$methoxy phenyl) phosphino) ferrocenyl] ethyldicyclohexyl phosphine, (R)-1-\{(S)-2-[Bis(4-methoxy-3,5-$			
	dimethylphenyl)phosphino]ferrocenyl}ethyldicyclo			
Relevant identified uses of the substance or mixture and uses advised against				
Relevant identified uses of the s	substance or mixture and uses advised against			
Relevant identified uses of the s	substance or mixture and uses advised against : For R&D use only. Not for medicinal, household or other use.			
Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.			
Relevant identified uses Uses advised against	: For R&D use only. Not for medicinal, household or other use.			

Telephone : 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Signal word	no data available	
Hazard statement(s)		
no data available		
Prevention		
no data available		
Response		
no data available		
Storage		
no data available		
Disposal		
no data available		

SECTION 3: Composition/information on ingredients

Substance

Product name	: (R)-(-)-1-[(S)-2-(DI(3,5-DIMETHYL-4-
	METHOXYPHENYL)PHOSPHINO)FERROCENYL]ETHYLDICYCLOHEXYLPHOSPHINE
Synonyms	: (R)-(-)-1-[(S)-2-(di(3,5-dimethyl-4-
	methoxyphenyl)phosphino)ferrocenyl]ethyldicyclohexylphosphine,(R)-1-{(S)-2-[Bis(4-methoxy-3,5-
	dimethylphenyl)phosphino]ferrocenyl}ethyldicyclo
CAS	: 360048-63-1
MF	: C42H50FeO2P2
MW	: 704.65

SECTION 4: First aid measures

Description of first aid measures

lf inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

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

Special hazards arising from the substance or mixture

Carbon oxides, Oxides of phosphorus, Iron oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.Normal measures for preventive fire protection.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory

practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Odour ThresholdNo data availablePHNo data availableMelting point/freezing pointNo data availableInitial boiling point and boiling rangeNo data availableFlash pointNo data availableFlash pointNo data availableEvaporation rateNo data availableFlammability (solid, gas)No data availableIimitsNo data availableVapour pressureNo data availableVapour densityNo data availableRelative densityNo data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data availableVesorityNo data availableAutoignition temperatureNo data availableVesorityNo data availableAutoignition temperatureNo data availableVesorityNo data availableDecomposition temperatureNo data availableVesorityNo data availableNo data availableDecomposition temperatureNo data availableVesorityNo data availableVesor	Appearance	orange powder
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Other safety information

No data available

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Oxides of phosphorus, Iron oxides Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity No data available Skin corrosion/irritation No data available Serious eye damage/eye irritation No data available Respiratory or skin sensitisation No data available Germ cell mutagenicity No data available Carcinogenicity IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. **Reproductive toxicity** No data available Specific target organ toxicity - single exposure No data available Specific target organ toxicity - repeated exposure No data available Aspiration hazard No data available Additional Information **RTECS:** Not available

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: - IMDG: - IATA: -

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

- Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Not Listed. website: https://www.mee.gov.cn/
- EC Inventory:Not Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Not Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Not Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Not Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Not Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Not Listed. website: https://www.epa.gov/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

- CAS: Chemical Abstracts Service
- EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

- [1] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- [2] ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- [3] ECHA European Chemicals Agency, website: https://echa.europa.eu/
- [4] eChemPortal The Global Portal to Information on Chemical Substances by OECD, website:

http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

- [5] ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- [6] Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

- [7] HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- [8] IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- [9] IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

[10] Sigma-Aldrich, website: https://www.sigmaaldrich.com/

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