



**AMERICAN  
ELEMENTS**

THE MATERIALS SCIENCE MANUFACTURER®

## Pricing >

Linear Formula	C <sub>14</sub> H <sub>9</sub> ClN(O)RuS
Pubchem CID	73594594
MDL Number	MFC015294564
EC No.	N/A
IFPAC Name	chloro ruthenium (+1) [(1S,2S)-1,2-diphenyl-2-(3-phenylpropylamino)ethyl]-4-methylphenylisotriazolidine
ReactiveHazards No.	N/A
SMILES	CC=C(C=C(C1S(=O)(=O)N(C)C2=CC=CC=C2C3=CC=C(C3)N(C)CCCC=C(C)=CC=C4C=C(Ru)N(C)N1)SC3PTN0205)CH.Ru(1)[24-19-21-2622-20-2435(33,3433)-3027-17-9-4-10-19-27]2926-15-7-3-6-16-2631-23-11-14-25-12-6-2-6-13-26-30-15,12-13,15,22,29-31(11,14,29)(2,10,19)1p;1-1029-30-11(10,14,29)1p,GRDONLY-AROPRAJBA.M
Isotix Identifier	
Isotix Key	
<b>Signal Word</b>	Warning
<b>Hazard Statements</b>	H315-H319-H335
<b>Hazard Codes</b>	N/A
<b>Precautionary Statements</b>	P231-P222-P305+P351+P338-P403+P233-P422-P501
<b>Risk Codes</b>	N/A
<b>Safety Statements</b>	N/A
<b>Transport Information</b>	NONH for all modes of transport

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# SAFETY DATA SHEET

**Date Accessed:** 04/20/2024

**Date Revised:** 01/15/2022

## SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #851051-43-9

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture  
GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.  
GHS label elements  
The substance is classified and labeled according to  
the Globally Harmonized System (GHS).



Hazard pictograms  
GHS07  
Signal word Warning  
Hazard-determining components of labeling:  
{N-[3-( $\eta$ 6-phenyl)propyl]-[(1S-2S)-1,2-diphenyl-1-4-methylbenzenesulfonylamidato(kN')-ethyl-2-amino-(kN)]}ruthenium(II)  
Hazard statements  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
Precautionary statements  
P231 Handle under inert gas.  
P222 Do not allow contact with air.  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P422 Store contents under inert gas.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.  
Classification system:  
NFPA ratings (scale 0 - 4)  
Health = 1  
Fire = 0  
Reactivity = 0  
HMIS-ratings (scale 0 - 4)  
Health = 1  
Fire = 0  
Reactivity = 0  
Other hazards  
Results of PBT and vPvB assessment  
PBT: N/A  
vPvB: N/A

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances  
CAS # / Substance Name  
851051-43-9 {N-[3-( $\eta$ 6-phenyl)propyl]-[(1S-2S)-1,2-diphenyl-1-4-methylbenzenesulfonylamidato(kN')-

## **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

If inhaled: In case of unconsciousness place patient stably in side position for transportation.

In case of skin contact: Immediately wash with soap and water; rinse thoroughly.

In case of eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

If swallowed: If symptoms persist consult doctor.

Information for doctor:

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

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media

Suitable extinguishing agents:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

No data available

Advice for firefighters

Protective equipment: No special measures required

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures Not required.

Environmental precautions: No special measures required.

Methods and materials for containment and cleanup:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## **SECTION 7. HANDLING AND STORAGE**

Handling: Handle under inert gas.

Precautions for safe handling Open and handle receptacle with care.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities: Store contents under inert gas.

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No data available

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace: Not required.

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use

respiratory protective device that is independent of circulating air.

Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the

chemical mixture.

Selection of the glove material on consideration of the

penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and

varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be

observed.

Eye protection:

Tightly sealed goggles

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

Appearance:

Form: Powder

Color: Orange

Odor: Odorless

Odor threshold: No data available.

pH: N/A

Melting point/Melting range: no data

Boiling point/Boiling range: no data

Flash point: N/A

Flammability (solid, gas): Product is not flammable.

Ignition temperature:

Decomposition temperature: No data available.

Autoignition: No data available.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: No data available.

Upper: No data available.

Vapor pressure: N/A

Density: No data available.

Relative density No data available.

Vapor density N/A

Evaporation rate N/A

Solubility in / Miscibility with

Water: Insoluble.

Partition coefficient (n-octanol/water): No data available.

Viscosity:

Dynamic: N/A

Kinematic: N/A

Solvent content:

Organic solvents: 0.0 %

VOC content: 0.0 g/l / 0.00 lb/gl

Solids content: 100.0 %

Other information No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity No data available

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No data available

Incompatible materials: No data available

Hazardous decomposition products: No dangerous decomposition products known.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity

Aquatic toxicity: No data available

Persistence and degradability No data available

Behavior in environmental systems:

Bioaccumulative potential No data available

Mobility in soil No data available

Additional ecological information: Not known to be hazardous to water.

Results of PBT and vPvB assessment

PBT: N/A

vPvB: N/A

Other adverse effects No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to enter drains, sewage systems, or other water courses system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

UN-Number

DOT, ADN, IMDG, IATA not regulated

UN proper shipping name

DOT, ADN, IMDG, IATA not regulated

Transport hazard class(es)

DOT, ADN, IMDG, IATA

Class not regulated

Packing group

DOT, IMDG, IATA not regulated

Environmental hazards:

Marine pollutant: No

Special precautions for user N/A

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code N/A

UN "Model Regulation": not regulated

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## **SECTION 15. REGULATORY INFORMATION**

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

Sara

Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

TSCA (Toxic Substances Control Act):

Substance is not listed.

Proposition 65

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for

males:  
Substance is not listed.  
Chemicals known to cause developmental toxicity:  
Substance is not listed.  
Carcinogenic categories  
EPA (Environmental Protection Agency)  
Substance is not listed.  
TLV (Threshold Limit Value established by ACGIH)  
Substance is not listed.  
NIOSH-Ca (National Institute for Occupational Safety and Health)  
Substance is not listed.  
GHS label elements  
The substance is classified and labeled according to the Globally Harmonized System (GHS).  
Hazard pictograms  
d~?GHS07  
Signal word Warning  
Hazard-determining components of labeling:  
{N-[3-(6-phenyl)propyl]-[(1S-2S)-1,2-diphenyl-1-4-methylbenzenesulfonylamidato(kN')-ethyl-2-amino-(kN)]}ruthenium(II)  
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P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P422 Store contents under inert gas.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.  
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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## 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). 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 applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties



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