

Revision Date 24-Nov-2010

Revision Number 1

**1. PRODUCT AND COMPANY IDENTIFICATION****Product Identifier**

**Product Description:** Bis(norbornadiene)rhodium(I) tetrafluoroborate  
**Cat No.** 382550000; 382551000; 382555000

**Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** Laboratory chemicals  
**Uses advised against** No Information available

**Details of the supplier of the safety data sheet****Company**

Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

**E-mail address** [begeel.sdsdesk@thermofisher.com](mailto:begeel.sdsdesk@thermofisher.com)

**Emergency Telephone Number**

For information in the US, call: 800-ACROS-01  
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99  
Emergency Number, US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300  
CHEMTREC Phone Number, Europe: 703-527-3887

**2. HAZARDS IDENTIFICATION****Classification of the substance or mixture****REGULATION (EC) No 1272/2008**

Flammable solids.

Category 2

**Classification according to EU Directives 67/548/EEC or 1999/45/EC***For the full text of the R phrases mentioned in this Section, see Section 16*

**Symbol(s)** F - Highly flammable  
**R -phrase(s)** R11 - Highly flammable

**Label Elements****Signal Word****Warning**

**Hazard Statements**

H228 - Flammable solid

**Precautionary Statements - EU (§28, 1272/2008)**

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

**Other Hazards**

No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	EC No.	Weight %	CAS-No	Classification	GHSCLAS	REACH Reg. No.
Bis(norbornadiene)rhodium(I) tetrafluoroborate 36620-11-8		94	36620-11-8	F; R11	Flam. Sol. 2 (H228)	-

For the full text of the R phrases mentioned in this Section, see Section 16

**4. FIRST AID MEASURES**

**Description of first aid measures**

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Obtain medical attention

**Skin Contact**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes Obtain medical attention

**Ingestion**

Clean mouth with water Get medical attention

**Inhalation**

Remove from exposure, lie down Move to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration Obtain medical attention

**Notes to Physician**

Treat symptomatically

**5. FIRE-FIGHTING MEASURES**

**Extinguishing media**

**Suitable Extinguishing Media**

Water spray Carbon dioxide (CO<sub>2</sub>) Dry chemical chemical foam

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Flammable Explosive properties Combustible material

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

### Environmental precautions

Prevent further leakage or spillage if safe to do so

### Methods and material for containment and cleaning up

Avoid dust formation Remove all sources of ignition Use spark-proof tools and explosion-proof equipment Sweep up or vacuum up spillage and collect in suitable container for disposal Do not let this chemical enter the environment

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid contact with skin and eyes Avoid contact with clothing Avoid breathing vapors or mists Do not ingest Use explosion-proof equipment Use only non-sparking tools Keep under nitrogen

### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place Keep container tightly closed Keep away from heat and sources of ignition Protect from moisture Flammables area Keep under nitrogen Keep away from heat, sparks and open flame. - No smoking

### Specific End Uses

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### **Exposure limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### **Derived No Effect Level (DNEL)**

No information available.

#### **Predicted No Effect Concentration (PNEC)**

No information available.

### Exposure controls

#### **Engineering Measures**

Use explosion-proof electrical/ventilating/lighting/equipment

#### **Personal protective equipment**

##### **Eye Protection**

Goggles

##### **Hand Protection**

Protective gloves

##### **Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

##### **Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

### Environmental exposure controls

No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### **Physical State**

Powder, Solid

### **Appearance**

Red

### **pH**

No information available.

### **Boiling Point/Range**

No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Melting Point/Range</b>	209 - 211°C / 408.2 - 411.8°F
<b>Flash Point</b>	No information available.
<b>Water Solubility</b>	decomposes
<b>Molecular Formula</b>	C14 H16 B F4 Rh
<b>Molecular Weight</b>	373.99

## 10. STABILITY AND REACTIVITY

### Reactivity

#### Chemical Stability

Hygroscopic. heat sensitive. Air sensitive.

#### Possibility of Hazardous Reactions

**Hazardous Polymerization** No information available.

**Hazardous Reactions .** No information available.

#### Conditions to Avoid

Keep away from open flames, hot surfaces and sources of ignition, Excess heat, Incompatible products, Exposure to moist air or water.

#### Incompatible Materials

Acids, Bases, Strong oxidizing agents.

#### Hazardous Decomposition Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Oxides of boron. Gaseous hydrogen fluoride (HF). Fluorine.

## 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Acute Toxicity

**Product Information** No acute toxicity information is available for this product

#### Component Information

#### Chronic Toxicity

**Carcinogenicity** There are no known carcinogenic chemicals in this product

#### Sensitization

No information available.

#### Mutagenic Effects

No information available

#### Reproductive Effects

No information available.

#### Developmental Effects

No information available.

#### Target Organs

No information available.

#### Other Adverse Effects

The toxicological properties have not been fully investigated.

#### Endocrine Disruptor Information

None known

## 12. ECOLOGICAL INFORMATION

### Toxicity

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects** Do not empty into drains

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available.

**Mobility in soil**

No information available.

**Results of PBT and vPvB assessment**

**Other adverse effects**

No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Waste from Residues / Unused Products**

Dispose of in accordance with local regulations

**Contaminated Packaging**

Empty containers should be taken for local recycling, recovery or waste disposal

## 14. TRANSPORT INFORMATION

**IMDG/IMO**

<b>UN-No</b>	1325
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	FLAMMABLE SOLID, ORGANIC, N.O.S.

**ADR**

<b>UN-No</b>	1325
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	FLAMMABLE SOLID, ORGANIC, N.O.S.

**IATA**

<b>UN-No</b>	1325
<b>Hazard Class</b>	4.1
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	FLAMMABLE SOLID, ORGANIC, N.O.S.*

## 15. REGULATORY INFORMATION

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

**International Inventories**

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory Lists

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**CHINA** - China Inventory of Existing Chemical Substances

**AICS** - Inventory of Chemical Substances

**KECL** - Existing and Evaluated Chemical Substances

## **Chemical Safety Assessment**

### **16. OTHER INFORMATION**

#### **Text of R phrases mentioned in Section 2-3**

R11 - Highly flammable

**Revision Date** 24-Nov-2010

**Revision Summary** Not applicable

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

#### **Disclaimer**

**The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text**

**End of Safety Data Sheet**