

## MATERIAL SAFETY DATA SHEET

### PART I *What is the material and what do I need to know in an emergency?*

#### 1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED) PERFLUOROARYLBORATE SALT IN  
METHYLCYCLOHEXANE

PRODUCT NUMBER: BSC-1370

MANUFACTURER'S NAME: BOULDER SCIENTIFIC COMPANY  
ADDRESS: 598 Third Street, PO Box 548  
Mead, CO 80542

EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC)  
BUSINESS PHONE: (970)535-4494  
FAX (970)535-4584

DATE OF PREPARATION: 18-Jun-08

#### 2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME:	CAS #:	% w/w	EXPOSURE LIMITS IN AIR					OTHER
			ACGIH		OSHA			
			TLV ppm	STEL ppm	PEL ppm	STEL ppm	IDLH ppm	
Methylcyclohexane	108-87-2	90	400		500			
Perfluoroarylborate Salt	200644-82-2	10	NE	NE	NE	NE	NE	

NE = Not Established W = Withheld C = Ceiling Level See Section 16 for Definitions of Terms Used.

**MATERIAL SAFETY DATA SHEET**

Date Prepared : Apr.17.2012

Date Revised : Aug.28.2012

**1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION**

**PRODUCT NAME:** RIBS-2/MCH  
**MANUFACTURER:**  
 Company Name: AGC SEIMI CHEMICAL CO., LTD.  
 Address: 3-2-10 Chigasaki, Chigasaki-shi, Kanagawa, 253-8585 Japan  
 Telephone No.: +81-467-82-4131  
 Attn: :In charge, Organic Materials General Div. Business Administrative Div. Sales & Marketing Group  
 Emergency Phone: +81-467-82-4398

**2. HAZARDS IDENTIFICATION****GHS CLASSIFICATION**

## Physical and chemical hazards

Explosives	Not applicable
Flammable gases	Not applicable
Flammable aerosols	Not applicable
Oxidizing gases	Not applicable
Gases under pressure	Not applicable
Flammable liquids	Category 2
Flammable solids	Not applicable
Self-reactive substances and mixtures	Not applicable
Pyrophoric liquids	Not classified
Pyrophoric solids	Not applicable
Self-heating substances and mixtures	Not applicable
Substances and mixtures, which in contact with water, emit flammable gases	Not applicable
Oxidizing liquids	Not applicable
Oxidizing solids	Not applicable
Organic peroxides	Not applicable
Corrosive to metals	Classification not possible

## Health hazards

Acute toxicity (Oral)	Category 4
Acute toxicity (Dermal)	Not classified
Acute toxicity (Inhalation: vapor)	Category 5
Skin corrosion/irritation	Category 3
Serious eye damage/irritation	Category 2B
Respiratory sensitization	Classification not possible
Skin sensitization	Classification not possible
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity (Single exposure)	Category 3
Specific target organ toxicity (Repeated exposure)	Classification not possible
Aspiration hazard	Category 1



# Material Safety Data Sheet

Date of preparation 2010/09/07

Date of revision 2012/10/05

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **DOC-6114 in Methylcyclohexane**

Company name: **KOEI CHEMICAL COMPANY, LIMITED**

Address: **Shionogi Honcho Kyodo Building, 7-2, Nihonbashi-Honcho 3-chome, Chuo-ku, Tokyo, Japan**  
**Information and emergency phone during business hour**  
**Telephone number +81-3-6667-8271**  
**FAX number +81-3-6667-8289**

Remarks: **Transport emergency telephone**  
**CHEMTREC**  
**800-424-9300(The United States or Canada, toll-free)**  
**+1-703-527-3887(Outside the United States or Canada, collect calls accepted)**

Product code: **Y1051**

Recommended use and restrictions: **• General chemical material**

## 2. HAZARDS IDENTIFICATION

### GHS classification:

#### Physical hazards:

Flammable liquids:	Category 2
Pyrophoric liquids:	Not classified
Substances and mixtures, which in contact with water, emit flammable gases:	Category 3

#### Health hazards:

Acute toxicity-oral:	Category 4
Skin corrosion/irritation:	Not classified
Serious eye damage/eye irritation:	Category 2
Specific target organ toxicity-single exposure:	Category 3 (narcotic effects)
Aspiration hazard:	Category 1

#### Environmental hazards:

Hazardous to the aquatic environment-acute:	Category 1
Hazardous to the aquatic environment-chronic:	Category 1

For those hazards do not list above are "not applicable" or "classification not possible".

### GHS label element:

#### Pictogram:



Signal word: **• Danger**

Hazard statements: **• Highly flammable liquid and vapour**

# Material safety data sheet



According to Regulation (EC) No. 1907/2006

## MMAO-3A 7 WT% AL IN HEPTANE

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

<b>Product label name</b> Modified methylaluminoxane in Heptane	
<b>Supplier</b> Akzo Nobel Polymer Chemicals B.V. Stationsstraat 77 PO Box 247 NL-3800 AE Amersfoort The Netherlands T +31 334676767  <a href="http://www.akzonobel.com/polymer">www.akzonobel.com/polymer</a>	
<b>E-mail address of person responsible for safety data sheet</b> <a href="mailto:jaco.wessels@akzonobel.com">jaco.wessels@akzonobel.com</a>	
<b>Emergency telephone</b> T +31570679211 F +31570679801 AkzoNobel Chemicals-Deventer-NL	
<b>Intended use</b> co-catalyst for olefin polymerization	
<b>EU usage restriction</b> Warning - this preparation contains a substance not yet tested completely. NOTE: FOR RESEARCH AND DEVELOPMENT PURPOSE ONLY.	
<b>Date of last issue / Revision number</b> 2008/07/17 / 1.03	
<b>Chemical family</b> Metal alkyl	

### 2. HAZARDS IDENTIFICATION

Highly flammable. Reacts violently with water, liberating extremely flammable gases. Causes burns. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a preparation in conformance to EC directives.			
Information on hazardous ingredients			
<b>Chemical description</b> Modified methylaluminoxane in Heptane			
<b>Composition / information on ingredients</b>			
Number	% w/w	CAS-number	Chemical name
1	8.2 - 13.5	148905-79-5	Aluminoxanes, iso-Bu Me, branched, cyclic and linear
2	3.6 - 8	000075-24-1	Trimethylaluminum
3	3.5 - 10.7	000100-99-2	Triisobutylaluminum
4	72 - 81.9	000142-82-5	Heptane