



# SAFETY DATA SHEET

Creation Date 13-May-2009

Revision Date 24-Nov-2010

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Description:** (R)-2-Methyl-CBS-oxazaborolidine, 1M solution in toluene  
**Cat No.** 369780000; 369780050; 369780250  
**Synonyms** (R)-3,3-Diphenyl-1-methylpyrrolidino[1,2-c]-1,3,2-oxazaborole

### 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** begel.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

Aspiration Toxicity	Category 1
Acute oral toxicity	Category 4
Skin Corrosion / irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Reproductive Toxicity	Category 2
Specific target organ systemic toxicity (single exposure)	Category 3
Specific target organ systemic toxicity (repeated exposure)	Category 2
Flammable liquids.	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)** Xn - Harmful  
F - Highly flammable

## 2. HAZARDS IDENTIFICATION

<b>R -phrase(s)</b>	R11 - Highly flammable R22 - Harmful if swallowed R38 - Irritating to skin R41 - Risk of serious damage to eyes R63 - Possible risk of harm to the unborn child R65 - Harmful: may cause lung damage if swallowed R67 - Vapors may cause drowsiness and dizziness
<b>Risk Combination Phrases</b>	R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation

### Label Elements



### Signal Word

**Danger**

### Hazard Statements

H318 - Causes serious eye damage  
H302 - Harmful if swallowed  
H304 - May be fatal if swallowed and enters airways  
H336 - May cause drowsiness or dizziness  
H373 - May cause damage to organs through prolonged or repeated exposure  
H315 - Causes skin irritation  
H361d - Suspected of damaging the unborn child  
H225 - Highly flammable liquid and vapor

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

P280 - Wear eye protection/face protection  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P301+ P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

### Other Hazards

No information available.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No.	Weight %	CAS-No	Classification	GHSCLAS	REACH Reg. No.
Toluene 108-88-3	EEC No. 203-625-9	62-76	108-88-3	F;R11 Repr.Cat.3;R63 Xn;R48/20-65 Xi;R38 R67	Flam. Liq. 2 (H225) Repr. 2 (H361d) Asp. Tox. 1 (H304) STOT RE 2 (H373) Skin Irrit. 2 (H315) STOT SE 3 (H336)	-
(R)-2-Methyl-CBS-oxazaborolidine 112022-83-0		24-38	112022-83-0	Xn;R22 Xi;R41	Eye Dam. 1 (H318) Acute Tox. 4 (H302)	-

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 plenty of water for at least 15 minutes Obtain medical attention

**Ingestion**

Do not induce vomiting Call a physician or Poison Control Center immediately

**Inhalation**

Move to fresh air If breathing is difficult, give oxygen Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device Obtain medical attention

**Notes to Physician**

Treat symptomatically

### 5. FIRE-FIGHTING MEASURES

**Extinguishing media**

**Suitable Extinguishing Media**

Cool closed containers exposed to fire with water spray Dry chemical Carbon dioxide (CO2) alcohol-resistant foam

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

No information available.

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

Flammable Containers may explode when heated Vapors may form explosive mixtures with air Vapors may travel to source of ignition and flash back

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear Thermal decomposition can lead to release of irritating gases and vapors

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment Remove all sources of ignition Take precautionary measures against static discharges

### Environmental precautions

Should not be released into the environment

### Methods and material for containment and cleaning up

Soak up with inert absorbent material Keep in suitable and closed containers for disposal Remove all sources of ignition Use spark-proof tools and explosion-proof equipment

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment Do not get in eyes, on skin, or on clothing Avoid ingestion and inhalation Keep away from open flames, hot surfaces and sources of ignition Use only non-sparking tools Use explosion-proof equipment Take precautionary measures against static discharges

### Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place Flammables area Keep away from heat and sources of ignition Keep under nitrogen

### Specific End Uses

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### Exposure limits

#### **Component**

Toluene

European Union	The United Kingdom	France	Belgium	Spain
		VME: 192 mg/m <sup>3</sup> VME: 50 ppm VLCT: 100 ppm VLCT: 384 mg/m <sup>3</sup>	STEL: 384 mg/m <sup>3</sup> STEL: 100 ppm TWA: 50 ppm TWA: 192 mg/m <sup>3</sup>	VLA-EC: 384 mg/m <sup>3</sup> VLA-EC: 100 ppm VLA-ED: 50 ppm VLA-ED: 192 mg/m <sup>3</sup>

#### **Component**

Toluene

Italy	Portugal	The Netherlands	Finland	Denmark
TWA: 50 mg/m <sup>3</sup> TWA: 192 ppm	TWA: 50 ppm	STEL: 384 mg/m <sup>3</sup> TWA: 150 mg/m <sup>3</sup>	TWA: 190 mg/m <sup>3</sup> TWA: 50 ppm STEL: 380 mg/m <sup>3</sup> STEL: 100 ppm	TWA: 25 ppm TWA: 94 mg/m <sup>3</sup>

#### **Component**

Toluene

Austria	Switzerland	Poland	Norway	Ireland
STEL: 380 mg/m <sup>3</sup> STEL: 100 ppm MAK: 190 mg/m <sup>3</sup> MAK: 50 ppm	STEL: 200 ppm STEL: 760 mg/m <sup>3</sup> MAK: 190 mg/m <sup>3</sup> MAK: 50 ppm	NDSch: 200 mg/m <sup>3</sup> NDS: 100 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 94 mg/m <sup>3</sup>	TWA: 188 mg/m <sup>3</sup> TWA: 50 ppm STEL: 100 ppm STEL: 560 mg/m <sup>3</sup> Skin

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

### Exposure controls

<b>Engineering Measures</b>	Ensure that eyewash stations and safety showers are close to the workstation location Ensure adequate ventilation, especially in confined areas Use explosion-proof electrical/ventilating/lighting/equipment
<b>Personal protective equipment</b>	
<b>Eye Protection</b>	Safety glasses with side-shields
<b>Hand Protection</b>	Protective gloves
<b>Skin and body protection</b>	Wear appropriate protective gloves and clothing to prevent skin exposure
<b>Respiratory Protection</b>	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
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice
<b>Environmental exposure controls</b>	No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid
<b>pH</b>	No information available.
<b>Boiling Point/Range</b>	111°C / 231.8°F
<b>Melting Point/Range</b>	No information available.
<b>Flash Point</b>	4°C / 39.2°F
<b>Specific Gravity</b>	0.95
<b>Molecular Formula</b>	C18 H20 B N O
<b>Molecular Weight</b>	277.17

## 10. STABILITY AND REACTIVITY

**Reactivity**  
**Chemical Stability**  
Moisture sensitive.

### **Possibility of Hazardous Reactions**

**Hazardous Polymerization** Hazardous polymerization does not occur.  
**Hazardous Reactions .** None under normal processing..

### **Conditions to Avoid**

Incompatible products, Excess heat, Keep away from open flames, hot surfaces and sources of ignition, Exposure to moisture.

### **Incompatible Materials**

Strong oxidizing agents, Bases, Strong acids.

### **Hazardous Decomposition Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Oxides of boron.

## 11. TOXICOLOGICAL INFORMATION

### **Information on Toxicological Effects**

#### **Acute Toxicity**

**Product Information** Product does not present an acute toxicity hazard based on known or supplied information

#### **Component Information**

**11. TOXICOLOGICAL INFORMATION**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Toluene	636 mg/kg ( Rat )	12124 mg/kg ( Rat ) 8390 mg/kg ( Rabbit )	26700 ppm ( Rat ) 1 h
(R)-2-Methyl-CBS-oxazaborolidine	200-2000 mg/kg (Rat)		

**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.

**Teratogenicity**

Possible risk of harm to the unborn child

**Target Organs**

Skin Respiratory system Eyes Central nervous system (CNS)

**Other Adverse Effects**

See actual entry in RTECS for complete information The toxicological properties have not been fully investigated.

**Endocrine Disruptor Information**

None known

**12. ECOLOGICAL INFORMATION**

**Toxicity**

**Ecotoxicity effects**

Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Toluene	12.5 mg/L EC50 = 72 h 433 mg/L EC50 > 96 h	50.87-70.34 mg/L LC50 96 h 5.89-7.81 mg/L LC50 96 h 15.22-19.05 mg/L LC50 96 h 14.1-17.16 mg/L LC50 96 h 11.0-15.0 mg/L LC50 96 h 54 mg/L LC50 96 h 5.8 mg/L LC50 96 h 28.2 mg/L LC50 96 h 12.6 mg/L LC50 96 h	EC50 = 19.7 mg/L 30 min	11.5 mg/L EC50 = 48 h 5.46 - 9.83 mg/L EC50 48 h

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available.

Component	log Pow
Toluene	2.65

Mobility in soil

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

UN-No UN1294  
 Hazard Class 3  
 Packing Group II  
 Proper Shipping Name TOLUENE SOLUTION

ADR

UN-No UN1294  
 Hazard Class 3  
 Packing Group II  
 Proper Shipping Name TOLUENE SOLUTION

IATA

UN-No UN1294  
 Hazard Class 3  
 Packing Group II  
 Proper Shipping Name TOLUENE SOLUTION

**15. REGULATORY INFORMATION**

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

**International Inventories**

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Toluene	203-625-9	-		X	X	-	X	X	X	X	KE-33936 X
(R)-2-Methyl-CBS-oxazaborolidine	-	-		-	-	-	-	-	X	-	-

**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  
R22 - Harmful if swallowed  
R38 - Irritating to skin  
R41 - Risk of serious damage to eyes  
R63 - Possible risk of harm to the unborn child  
R65 - Harmful: may cause lung damage if swallowed  
R67 - Vapors may cause drowsiness and dizziness  
R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation

**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**