An ISO 9001 : 2015 & GMP Certified Company 101, Aarkay Ruby Industrial Estate (1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208. Tel : + 91 98200 41841

Email: info@ottokemi.com Web: www.ottokemi.com

## **MATERIAL SAFETY DATA SHEET (MSDS)**

**SECTION 1. Product identifiers** 

Product name: R(+) Glycidol, 98%

Product Code: G 1393 CAS No : 57044-25-4

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use: Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification OTTO CHEMIE PVT LTD

101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate,

Chinchpada, Vasai East, Waliv, Maharashtra 401208.

Email info@ottokemi.com

1.4. Emergency telephone number

Phone no.: + 91 22 2207 0099 (9:00am - 6:00 pm)

### **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Self-reactive substances and mixtures (Type C), H242

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 2), H330

Acute toxicity, Dermal (Category 4), H312

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318 Germ cell mutagenicity (Category 2), H341

Carcinogenicity (Category 1B), H350

Reproductive toxicity (Category 1B), H360F

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word

Hazard statement(s)

H242

H302 + H312

H314

H330

H335

H341 H350

H360F

Precautionary statement(s)

P210

P280

P303 + P361 + P353

P304 + P340 + P310

P305 + P351 + P338

P370 + P378

## Danger

Heating may cause a fire.

Harmful if swallowed or in contact with skin. Causes severe skin burns and eye damage.

Fatal if inhaled.

May cause respiratory irritation.

Suspected of causing genetic defects.

May cause cancer.

May damage fertility.

Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

Wear protective gloves/ protective clothing/ eye protection/ face

protection/ hearing protection.

IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

In case of fire: Use dry sand, dry chemical or alcohol-resistant

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# otto chemie pvt ltd

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foam to extinguish.

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

none

Supplemental Hazard

P403 + P233 Statements

Restricted to professional users. Reduced Labeling (<= 125 ml)

Pictogram Signal word Hazard H330 H341 H350

H360F Precautionary statement(s)

H314

P303 + P361 + P353

P304 + P340 + P310

P305 + P351 + P338

Supplemental Hazard

Statements 2.3 Other hazards Danger statement(s) Fatal if inhaled.

Suspected of causing genetic defects.

May cause cancer.

Causes severe skin burns and eye damage.

May damage fertility.

Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. none

This substance/mixture contains no components considered to be either persistent,

bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## **SECTION 3: Composition/information on ingredients**

3.1 Substances

Formula C3H6O2 Molecular weight : 74,08 g/mol CAS-No. : 57044-25-4 EC-No. 404-660-4

Component	Classification	Concentration
(R)-2,3-epoxy-1-propanol		
CAS-No. 57044-25-4	Self-react. C; Acute Tox. 4; Acute Tox. 2;	<= 100 %
EC-No. 404-660-4	Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1;	
	Muta. 2; Carc. 1B; Repr. 1B; STOT SE 3;	
12	H242, H302, H330, H330, H312, H314,	
[ A ]	H318 H341 H350 H360F H335	

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### **SECTION 4: First aid measures**

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with

water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

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Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of

perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

## **SECTION 5: Firefighting measures**

5.1 Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

### **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions

(see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

## **SECTION 7: Handling and storage**

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep locked up or in an area accessible only to qualified or authorized persons. Separately or together with other organic peroxides only and away from sources of ignition and heat.

Air, light, and moisture sensitive.

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#### 7.3 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**

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eve protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety

Skin protection

required

Body Protection

protective clothing

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

## **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

a) Appearance

Color:

b) Odor c) Odor

d) pH

e) Melting

point/freezing point

f) Initial boiling point

and boiling range

g) Flash point

h) Evaporation rate

i) Flammability (solid,

gas)

j) Upper/lower flammability or

explosive limits

k) Vapor pressure

l) Vapor density

m) Relative density

n) Water solubility

o) Partition coefficient:

n-octanol/water

p) Autoignition

temperature

q) Decomposition

temperature

r) Viscosity

s) Explosive properties

t) Oxidizing properties

9.2 Other safety information

Form: clear, liquid light yellow odorless

Threshold Not applicable

No data available

No data available

70 °C at 19,99 hPa

72°C at ca.1.013,25 hPa

No data available

No data available

No data available

1,2 hPa at 25 °C No data available

No data available

completely miscible

No data available

415 °C

at 1.013,25 hPa

Type C

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

No data available

No data available

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No data available

### **SECTION 10: Stability and reactivity**

10.1 Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Strong acids, Strong bases, Heavy metals, Heavy metal salts, Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: see section 5

# **SECTION 11: Toxicological information**

11.1 Information on toxicological effects

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:

Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg

Inhalation LC50 Rat: > 50mg/L.

Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).

Special Remarks on Toxicity

to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

## **SECTION 12: Ecological information**

12.1 Toxicity

No data available

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) -

144,7 mg/l - 96 h

Remarks: (ECHA)

((R)-2,3-epoxy-1-propanol)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 94 % - Readily biodegradable.

Remarks: (ECHA)

12.3 Bioaccumulative potential

No data available 12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent,

bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at

levels of 0.1% or higher.

12.6 Other adverse effects

No data available

## **SECTION 13: Disposal considerations**

13.1 Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

## **SECTION 14: Transport information**

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14.1 UN number

ADR/RID: 0000 IMDG: 0000 IATA: 0000

14.2 UN proper shipping name

ADR/RID : Not permitted for transport ((R)-2,3-epoxy-1-propanol)
IMDG : Not permitted for transport ((R)-2,3-epoxy-1-propanol)
IATA : "unable to ship at this time" ((R)-2,3-epoxy-1-propanol)

Passenger Aircraft : Not permitted for transport Cargo Aircraft : Not permitted for transport

14.3 Transport hazard class(es)

ADR/RID: NON IMDG: NON IATA: NON

14.4 Packaging group
ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

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

14.6 Special precautions for user

Further information

Unable to ship at this time, further testing needed.

# **SECTION 15: Regulatory information**

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

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

Authorisations and/or restrictions on use

National legislation

Seveso III: Directive 2012/18/EU of the

European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

: ACUTE TOXIC

: SELF-REACTIVE SUBSTANCES AND

MIXTURES and ORGANIC PEROXIDES

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

### **SECTION 16: Other Information**

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.