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## MATERIAL SAFETY DATA SHEET (MSDS)

## **SECTION 1. Product identifiers**

Product name: Aluminium isopropoxide, 98%+ Product Code: A 1739 CAS No : 555-31-7 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 <u>info@ottokemi.com</u>

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 Flammable solids (Category 1), H228 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 Danger Hazard statement(s) H228 Flammable solid. Precautionary statement(s) P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting/equipment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. Supplemental Hazard Statements none Reduced Labeling (<= 125 ml) Pictogram Signal Word Danger Hazard statement(s) none Precautionary statement(s) none Supplemental Hazard Statements none 2.3 Other hazards 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 Synonyms : Aluminum isopropylate

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## AIP

Aluminum triisopropoxide Formula : C9H21AIO3 Molecular weight : 204,24 g/mol CAS-No. : 555-31-7 EC-No. : 209-090-8 Index-No. : 603-042-00-3 No components need to be disclosed according to the applicable regulations. 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 Show this material safety data sheet to the doctor in attendance. If inhaled After inhalation: fresh air. In case of skin contact In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower In case of eye contact After eye contact: rinse out with plenty of water. Remove contact lenses. 100 If swallowed After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell 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 Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.Water Foam Carbon dioxide (CO2) Dry powder Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture Carbon oxides Aluminum oxide Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire. 5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

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: Avoid inhalation of dusts. 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. Risk of explosion.

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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

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6.4 Reference to other sections For disposal see section 13.

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

7.1 Precautions for safe handling 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 Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Tightly closed. Keep away from heat and sources of ignition. Moisture sensitive. Storage class Storage class (TRGS 510): 4.1B: Flammable solid hazardous materials 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 eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. **Body Protection** Flame retardant antistatic protective clothing. Respiratory protection required when dusts 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 P1 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.

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Control of environmental exposure Do not let product enter drains. Risk of explosion.

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

g) Upper/lower flammability or explosive limits

h) Flash point

i) Autoignition temperature

k) pH

j) Decomposition temperature

Viscosity, dynamic:

m) Water solubility

n-octanol/water o) Vapor pressure

Relative density

q) Relative vapor density

p) Density

r) Particle characteristics

n) Partition coefficient:

s) Explosive properties

t) Oxidizing properties

No data available

9.2 Other safety information

I) Viscosity Viscosity, kinematic:

9.1 Information on basic physical and chemical properties
a) Physical state
b) Color
c) Odor
d) Melting
point/freezing point
Melting point/range:
e) Initial boiling point
and boiling range
f) Flammability (solid,gas)

Solid White No data available

128 - 133 °C - lit.

125 - 130  $^\circ \text{C}$  at 51 hPa The substance or mixture is a flammable solid with the category1.

No data available Not applicable

No data available

No data available No data available No data available No data available insoluble

No data available No data available 1,035 g/cm3 at 25 °C - lit. No data available

No data available No data available

No data available None

SECTION 10: Stability and reactivity

10.1 Reactivity
The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
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 no information available
10.5 Incompatible materials
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 Acute toxicity Oral: No data available

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Inhalation: No data available Dermal: No data available Skin corrosion/irritation Remarks: No data available Serious eye damage/eye irritation Remarks: No data available Respiratory or skin sensitization No data available Germ cell mutagenicity No data available Carcinogenicity No data available Reproductive toxicity No data available Specific target organ toxicity - single exposure No data available Specific target organ toxicity - repeated exposure No data available Aspiration hazard No data available 11.2 Additional Information Endocrine disrupting properties Product<sup>.</sup> Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. RTECS: BD0975000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. **SECTION 12: Ecological information** 12.1 Toxicity No data available 12.2 Persistence and degradability No data available 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 Endocrine disrupting properties Product: Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. 12.7 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.

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SECTION 14: Transport information		
14.1 UN number		
ADR/RID: 3181	IMDG: 3181	IATA: 3181
14.2 UN proper shipping name		
ADR/RID: METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. (aluminum		
triisopropanolate)		
IMDG: METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. (aluminum		
triisopropanolate)		
IATA: Metal salts of organic compounds, flammable, n.o.s. (aluminum		
triisopropanolate)		
14.3 Transport hazard class(e		
ADR/RID: 4.1	IMDG: 4.1	IATA: 4.1
14.4 Packaging group		
ADR/RID: II	IMDG: II	IATA: II
14.5 Environmental hazards		
ADR/RID: no	IMDG Marine pollutant: no	IATA: no
14.6 Special precautions for user		
Tunnel restriction code : (E)		
Further information : No data available		
SECTION 45: Devulations information		
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.		
Other regulations		
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		
Tor the product a cholmour subty 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.

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