ROTOVARIO 532 501

Version 3.0 Revision Date 19.06.2026 Print Date 20.06.2026

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : ROTOVARIO 532 501
Material number : 053389G60M1

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

This information is not available.

1.3 Details of the supplier of the safety data sheet

Company : ECKART GmbH
Guentersthal 4
91235 Hartenstein
Telephone : +499152770
Telefax : +499152777008
E-mail address : msds.eckart@altana.com
Responsible/issuing person

1.4 Emergency telephone

NCEC:
(contract no.: ECKART29003-NCEC)
+44 1235 239671 (Middle East/Africa, call and response in your language)
+1 215 207 0061 (Americas, call and response in your language)
+65 3158 1074 (Asia-Pacific, call and response in your language)

SECTION 2: Hazards identification

GHS Classification

: Flammable solids, Category 1, H228
Serious eye damage/eye irritation, Category 2A, H319
Specific target organ toxicity - single exposure, Category 3,

Central nervous system, H336

GHS-Labeling

Symbol(s) :

Signal Word : Danger

Hazard Statements : H228: Flammable solid.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

Precautionary Statements : **Prevention:**
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.
P261 Avoid breathing dust.
P264 + P265 Wash hands thoroughly after handling. Do not touch eyes.
P271 Use only outdoors or with adequate ventilation.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
Response:
P304 + P340 + P319 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P317 If eye irritation persists: Get medical help.
P370 + P378 In case of fire: Use for extinction: Special powder for metal fires.
P370 + P378 In case of fire: Use for extinction: Dry sand.
Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients which must be listed on the label

Identification	CAS-No.
propyl acetate	109-60-4
ethyl acetate	141-78-6

SECTION 3: Composition/information on ingredients

Substance No. :

Hazardous ingredients

Chemical name	CAS-No. EINECS-No.	Classification and labeling	Concentration[%]
aluminium	7429-90-5 231-072-3	Flam. Sol.;1;H228	50 - 70
propyl acetate	109-60-4 203-686-1	Flam. Liq.;2;H225 Eye Dam./Irrit.;2A;H319 STOT SE;3;H336	30 - 50
ethyl acetate	141-78-6 205-500-4	Flam. Liq.;2;H225 Eye Dam./Irrit.;2A;H319 STOT SE;3;H336	1 - 10

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	:	Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Take the victim into fresh air.
If inhaled	:	Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.
In case of skin contact	:	If on skin, rinse well with water. If on clothes, remove clothes. Wash off immediately with soap and plenty of water.
In case of eye contact	:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

This information is not available.

4.3 Indication of any immediate medical attention and special treatment needed

This information is not available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry sand, Special powder against metal fire

Unsuitable extinguishing media	:	Carbon dioxide (CO2), ABC powder, Water, Foam

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting	:	Contact with water liberates extremely flammable gas (hydrogen).

5.3 Advice for firefighters

Special protective equipment for fire-fighters	:	Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
Further information	:	Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Avoid dust formation. Remove all sources of ignition. Evacuate personnel to safe areas. Use personal protective equipment.

6.2 Environmental precautions

General advice	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. The product should not be allowed to enter drains, water

courses or the soil.

This information is not available.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	:	Do not flush with water. Keep in suitable, closed containers for disposal. Use mechanical handling equipment. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Keep away from heat and sources of ignition. Avoid dust formation. Ensure adequate ventilation. Avoid formation of respirable particles. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion	:	Earthing of containers and apparatuses is essential. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	No smoking. Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep container closed when not in use. Keep away from sources of ignition - No smoking.
Further information on storage conditions	:	Protect from humidity and water. Do not allow to dry.
Advice on common storage	:	Do not store together with oxidizing and self-igniting products. Never allow product to get in contact with water during storage. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
Other data	:	No decomposition if stored and applied as directed.

7.3 Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Germany:

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
aluminium	7429-90-5	AGW (Inhalable fraction)	10 mg/m3	2021-07-02	DE TRGS 900
Peak-limit category		2;(II)			
Further information		When there is compliance with the OEL and biological tolerance			

		values, there is no risk of harming the unborn child			
aluminium	7429-90-5	AGW (Alveolate fraction)	1,25 mg/m3	2021-07-02	DE TRGS 900
Peak-limit category		2;(II)			
Further information		When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
ethyl acetate	141-78-6	AGW	200 ppm 730 mg/m3	2017-06-08	DE TRGS 900
Peak-limit category		2;(I)			
Further information		Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).European Union (The EU has established a limit value: deviations in value and peak limit are possible)When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
ethyl acetate	141-78-6	STEL	400 ppm 1 468 mg/m3	2017-02-01	2017/164/EU
Further information		Indicative			
ethyl acetate	141-78-6	TWA	200 ppm 734 mg/m3	2017-02-01	2017/164/EU
Further information		Indicative			
ethyl acetate	141-78-6	MAK	200 ppm 750 mg/m3	2023-07-01	DE DFG MAK
Peak-limit category		2; I			
Further information		Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
maleic anhydride	108-31-6	AGW (Vapour and aerosols)	0,02 ppm 0,081 mg/m3	2018-06-07	DE TRGS 900
Peak-limit category		1; =2.5=(I)			
Further information		Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).Sum of vapor and aerosols.When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn childSubstance sensitizing through the skin and respiratory system			
maleic	108-31-6	MAK	0,02 ppm	2024-07-01	DE DFG MAK

anhydride			0,081 mg/m3		
Peak-limit category		1; I			
Further information		Danger of sensitization of the airways and the skinDamage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
maleic anhydride	108-31-6	Mow	0,05 ppm 0,2 mg/m3	2024-07-01	DE DFG MAK
Peak-limit category		1; I			
Further information		Danger of sensitization of the airways and the skinDamage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Material : Solvent-resistant gloves (butyl-rubber)

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
The exact break through time can be obtained from the protective glove producer and this has to be observed.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Recommended preventive skin protection

Skin should be washed after contact.
The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Long sleeved clothing
Safety shoes

: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

: Use suitable breathing protection if workplace concentration requires.

Environmental exposure controls

General advice : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

: The product should not be allowed to enter drains, water courses or the soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	Pasty solid
Color	:	silver
Odor	:	characteristic
pH	:	substance/mixture is non-soluble (in water)
Freezing point	:	No data available
Boiling point/boiling range	:	101 °C
Flash point	:	No data available

Bulk density	:	No data available
Flammability (solid, gas)	:	The substance or mixture is a flammable solid with the category 1.
Auto-flammability	:	not auto-flammable
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	No data available
Density	:	1,3 - 2,0 g/cm3
Solubility(ies)		
Water solubility	:	insoluble
Miscibility with water	:	immiscible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Thermal decomposition	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Flow time	:	No data available
Explosive properties	:	Not explosive Vapors may form explosive mixture with air.

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Reacts with alkalis, acids, halogenes and oxidizing agents. Contact with acids and alkalis may release hydrogen. Mixture reacts slowly with water resulting in evolution of hydrogen. Vapors may form explosive mixture with air. Stable under recommended storage conditions.

10.4 Conditions to avoid

Conditions to avoid	:	Heat, flames and sparks. Do not allow to dry.

10.5 Incompatible materials

Materials to avoid	:	Acids Bases Oxidizing agents Highly halogenated compounds

10.6 Hazardous decomposition products

Other information	:	No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

propyl acetate :

Acute oral toxicity : Mouse: 8 300 mg/kg

Rat: 9 370 mg/kg

Acute dermal toxicity : Rat: 17 760 mg/kg

ethyl acetate :

Acute oral toxicity : Rat: 5 620 mg/kg

Acute inhalation toxicity : LC50 Rat: 56 mg/l

Exposure time: 4 h

Test atmosphere: vapor

Acute dermal toxicity : LD50 Rabbit: > 18 000 mg/kg

Skin corrosion/irritation

Product

May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Product

May cause irreversible eye damage.

Respiratory or skin sensitization

No data available

Carcinogenicity

No data available

Toxicity to reproduction/fertility

No data available

Reprod.Tox./Development/Teratogenicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:
ethyl acetate (141-78-6) :

Toxicity to daphnia and other aquatic invertebrates	:	(Daphnia): 717 mg/l

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

No data available

12.6 Other adverse effects

Product:

Additional ecological information	:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADR	:	1325
TDG	:	1325
CFR	:	1325
IMDG	:	1325
IATA	:	1325

14.2 Proper shipping name

ADR	:	FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)
TDG	:	FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)
CFR	:	FLAMMABLE SOLIDS, ORGANIC, N.O.S. (Aluminum pigment paste)
IMDG	:	FLAMMABLE SOLID, ORGANIC, N.O.S.

(,Aluminium pigment paste)

IATA : FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)

14.3 Transport hazard class

ADR	:	4.1
TDG	:	4.1
CFR	:	4.1
IMDG	:	4.1
IATA	:	4.1

14.4 Packing group

ADR

Packaging group	:	II
Classification Code	:	F1
Hazard Identification Number	:	40
Labels	:	4.1
Tunnel restriction code	:	(E)

TDG

Packaging group	:	II
Labels	:	4.1

CFR

Packaging group	:	II
Labels	:	4.1

IMDG

Packaging group	:	II
Labels	:	4.1
EmS Number	:	F-G, S-G

IATA

Packing instruction (cargo aircraft)	:	448
Packing instruction (passenger aircraft)	:	445
Packing instruction (LQ)	:	Y441
Packaging group	:	II
Labels	:	4.1

14.5 Environmental hazards

IMDG :

14.6 Special precautions for user

IMDG Code- segregation group:

: IMDG Code segregation group 15 - Powdered metals

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Banned and/or restricted (propyl acetate) (ethyl acetate) (ethanol)
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Banned and/or restricted (aluminium powder (stabilised)) (ethyl acetate)

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	(propyl acetate) (ethyl acetate)
REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	:	Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Full text of H-Statements

H225	:	Highly flammable liquid and vapor.
H228	:	Flammable solid.
H319	:	Causes serious eye irritation.
H336	:	May cause drowsiness or dizziness.

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.