



SAFETY DATA SHEET

MATERION

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

1.1. Product identifier

Name of the substance Beryllium Basic Acetate
Identification number 004-002-00-2 (Index number)
Synonyms Beryllium Oxide Acetate, Beryllium Oxyacetate
Document number M14
Issue date 24-March-2017
Version number 01

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

Identified uses The chemical(s) listed herein is not found on the Toxic Substance Control Act chemical substance inventory. This chemical may not be used for commercial purposes. This chemical may be used for research and development purposes only as defined at 40 CFR 710,2(y).

Uses advised against Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Consumer uses: Private households (= general public = consumers)

1.3. Details of the supplier of the safety data sheet

Supplier

Company name Materion Brush Inc.
Address 6070 Parkland Boulevard
Mayfield Heights, OH 44124
United States

Division

Telephone +1.216.383.4019
e-mail ehs@materion.com
Contact person Theodore Knudson

1.4. Emergency telephone number +1.216.383.4019

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Acute toxicity, oral	Category 3	H301 - Toxic if swallowed.
Acute toxicity, inhalation	Category 2	H330 - Fatal if inhaled.
Skin corrosion/irritation	Category 2	
Serious eye damage/eye irritation	Category 2	
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.
Carcinogenicity (inhalation)	Category 1B	H350 - May cause cancer.
Specific target organ toxicity - single exposure	Category 3 respiratory tract irritation	
Specific target organ toxicity - repeated exposure	Category 1	H372 - Causes damage to organs (respiratory system) through prolonged or repeated exposure by inhalation.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 2
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Hazard summary

DANGER

Fatal if inhaled. Very toxic. Harmful if absorbed through skin. Harmful in contact with eyes. Cancer hazard. May cause an allergic skin reaction. May cause sensitisation by inhalation and skin contact. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Possible reproductive hazard. Causes damage to organs. Danger of serious damage to health by prolonged exposure. Dangerous for the environment if discharged into watercourses.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Beryllium Basic Acetate

Hazard pictograms



Signal word Danger

Hazard statements

H301	Toxic if swallowed.
H330	Fatal if inhaled.
H317	May cause an allergic skin reaction.
H350	May cause cancer.
H372	Causes damage to organs (respiratory system) through prolonged or repeated exposure by inhalation.

Precautionary statements

Prevention

P201	Minimise dust generation and accumulation.
P202	Obtain special instructions before use.
P260	Do not handle until all safety precautions have been read and understood.
P264	Do not breathe dust/fume.
P270	Wash thoroughly after handling.
P272	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P285	In case of inadequate ventilation wear respiratory protection.

Response

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302 + P350	If on skin: Wash with plenty of water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER/doctor if you feel unwell.
P320	Specific treatment is urgent (see this label).
P308 + P311	If exposed or concerned: Call a poison center/doctor.
P330	Rinse mouth.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P342 + P311	If experiencing respiratory symptoms: Call a poison center/doctor.

Storage

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Supplemental label information

For further information, please contact the Product Stewardship Department at +1.800.862.4118.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Beryllium Basic Acetate	100	19049-40-2 242-785-4	-	004-002-00-2	
Classification:	Acute Tox. 3;H301, Skin Sens. 1;H317, Acute Tox. 2;H330, Carc. 1B;H350, STOT RE 1;H372				A

List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Community workplace exposure limit(s).

Composition comments The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General information If exposed or concerned: get medical attention/advice. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. As supplied, there is no immediate medical risk with beryllium products in article form. First aid measures provided are related to particulate containing beryllium.

4.1. Description of first aid measures

Inhalation If symptoms develop move victim to fresh air. For breathing difficulties, oxygen may be necessary. Breathing difficulty caused by inhalation of particulate requires immediate removal to fresh air. If breathing has stopped, perform artificial respiration and obtain medical help.

Skin contact Take off contaminated clothing and wash before reuse. Thoroughly wash skin cuts or wounds to remove all particulate debris from the wound. Seek medical attention for wounds that cannot be thoroughly cleansed. Treat skin cuts and wounds with standard first aid practices such as cleansing, disinfecting and covering to prevent wound infection and contamination before continuing work. Obtain medical help for persistent irritation. Material accidentally implanted or lodged under the skin must be removed.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if symptoms persist.

Ingestion If swallowed, seek medical advice immediately and show this container or label. Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed May cause allergic skin reaction. May cause allergic respiratory reaction. Prolonged exposure may cause chronic effects.

4.3. Indication of any immediate medical attention and special treatment needed Treatment of Chronic Beryllium Disease: There is no known treatment which will cure chronic beryllium disease. Prednisone or other corticosteroids are the most specific treatment currently available. They are directed at suppressing the immunological reaction and can be effective in diminishing signs and symptoms of chronic beryllium disease. In cases where steroid therapy has had only partial or minimal effectiveness, other immunosuppressive agents, such as cyclophosphamide, cyclosporine, or methotrexate, have been used. These latter agents remain investigational. Further, in view of the potential side effects of all the immunosuppressive medications, including steroids such as prednisone, they should be used only under the direct care of a physician. In general, these medications should be reserved for cases with significant symptoms and/or significant loss of lung function. Other symptomatic treatment, such as oxygen, inhaled steroids or bronchodilators, may be prescribed by some physicians and can be effective in selected cases.

The decision about when and with what medication to treat is a judgment situation for individual physicians. For the most part, treatment is reserved for those persons with symptoms and measurable loss of lung function. The value of starting oral steroid treatment, before signs or symptoms are evident, remains a medically unresolved issue.

The effects of continued low exposure to beryllium are unknown for individuals who are sensitized to beryllium or who have a diagnosis of chronic beryllium disease. It is generally recommended that persons who are sensitized to beryllium or who have CBD terminate their occupational exposure to beryllium.

SECTION 5: Firefighting measures

General fire hazards Not available.

5.1. Extinguishing media

Suitable extinguishing media

The product is non-combustible. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Do not use water to extinguish fires around operations involving molten metal due to the potential for steam explosions.

5.2. Special hazards arising from the substance or mixture

Not available.

5.3. Advice for firefighters

Special protective equipment for firefighters

Firefighters should wear full protective clothing including self-contained breathing apparatus.

Special firefighting procedures

Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.

Specific methods

Pressure-demand self-contained breathing apparatus must be worn by firefighters or any other persons potentially exposed to the particulate released during or after a fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

In solid form this material poses no special clean-up problems. Wear appropriate protective equipment and clothing during clean-up.

For emergency responders

Not available.

6.2. Environmental precautions

Avoid release to the environment. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Clean up in accordance with all applicable regulations.

6.4. Reference to other sections

For personal protection, see section 8 of the PIS. For waste disposal, see section 13 of the PIS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimise dust generation and accumulation. Do not breathe dust/fume. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection. Wash thoroughly after handling. When using, do not eat, drink or smoke. Contaminated work clothing must not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Keep locked-up. Avoid contact with acids and alkalis. Avoid contact with oxidising agents.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. TRK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Material	Type	Value	Form
Beryllium Basic Acetate (CAS 19049-40-2)	STEL	0,008 mg/m ³	Inhalable fraction.
	TWA	0,002 mg/m ³	Inhalable fraction.

Belgium. Exposure Limit Values.

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	STEL	0,01 mg/m ³
	TWA	0,002 mg/m ³

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,002 mg/m ³

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	MAC	0,002 mg/m ³

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,002 mg/m ³

Czech Republic. OELs. Government Decree 361

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	Ceiling	0,002 mg/m ³
	TWA	0,001 mg/m ³

Denmark. Exposure Limit Values

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TLV	0,001 mg/m ³

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,002 mg/m ³

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	VME	0,002 mg/m ³

Greece. OELs (Decree No. 90/1999, as amended)

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,005 mg/m ³

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	Ceiling	0,002 mg/m ³

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Material	Type	Value	Form
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,001 mg/m ³	Dust.

Ireland. Occupational Exposure Limits

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	STEL	0,0002 mg/m ³
	TWA	0,00005 mg/m ³

Italy. Occupational Exposure Limits

Material	Type	Value	Form
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,00005 mg/m ³	Inhalable fraction.

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,002 mg/m ³

Norway. Administrative Norms for Contaminants in the Workplace

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TLV	0,001 mg/m ³

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	STEL	0,01 mg/m ³
	TWA	0,002 mg/m ³

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,002 mg/m ³

Slovenia. CMR. Protection of workers from exposure to carcinogen and mutagen agents (ULRS 101/2005, as amended)

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,002 mg/m ³

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Material	Type	Value	Form
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,002 mg/m ³	Inhalable fraction.

Spain. Carcinogens and Mutagens with Limit Values (Table 2)

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,0002 mg/m ³

Sweden. Occupational Exposure Limit Values

Material	Type	Value	Form
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,002 mg/m ³	Total dust.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Material	Type	Value	Form
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,002 mg/m ³	Inhalable dust.

UK. EH40 Workplace Exposure Limits (WELs)

Material	Type	Value
Beryllium Basic Acetate (CAS 19049-40-2)	TWA	0,002 mg/m ³

Biological limit values

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures

VENTILATION: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Whenever possible, the use of local exhaust ventilation or other engineering controls is the preferred method of controlling exposure to airborne particulate. Where utilized, exhaust inlets to the ventilation system must be positioned as close as possible to the source of airborne generation. Avoid disruption of the airflow in the area of a local exhaust inlet by equipment such as a man-cooling fan. Check ventilation equipment regularly to ensure it is functioning properly. Provide training on the use and operation of ventilation to all users. Use qualified professionals to design and install ventilation systems.

WET METHODS: Machining operations are usually performed under a liquid lubricant/coolant flood which assists in reducing airborne particulate. However, the cycling through of machine coolant containing finely divided particulate in suspension can result in the concentration building to a point where the particulate may become airborne during use. Certain processes such as sanding and grinding may require complete hooded containment and local exhaust ventilation. Prevent coolant from splashing onto floor areas, external structures or operators' clothing. Utilize a coolant filtering system to remove particulate from the coolant.

WORK PRACTICES: Develop work practices and procedures that prevent particulate from coming in contact with worker skin, hair, or personal clothing. If work practices and/or procedures are ineffective in controlling airborne exposure or visual particulate from deposition on skin, hair, or clothing, provide appropriate cleaning/washing facilities. Procedures should be written that clearly communicate the facility's requirements for protective clothing and personal hygiene. These clothing and personal hygiene requirements help keep particulate from being spread to non-production areas or from being taken home by the worker. Never use compressed air to clean work clothing or other surfaces.

Fabrication processes may leave a residue of particulate on the surface of parts, products or equipment that could result in employee exposure during subsequent material handling activities. As necessary, clean loose particulate from parts between processing steps. As a standard hygiene practice, wash hands before eating or smoking.

HOUSEKEEPING: Use vacuum and wet cleaning methods for particulate removal from surfaces. Be certain to de-energize electrical systems, as necessary, before beginning wet cleaning. Use vacuum cleaners with high efficiency particulate air (HEPA). Do not use compressed air, brooms, or conventional vacuum cleaners to remove particulate from surfaces as this activity can result in elevated exposures to airborne particulate. Follow the manufacturer's instructions when performing maintenance on HEPA filtered vacuums used to clean hazardous materials.

Derived no effect levels (DNELs)

Not available.

Predicted no effect concentrations (PNECs)

Not available.

Exposure guidelines

Based on joint research conducted with the National Institute for Occupational Safety and Health (NIOSH), Materion adopted an 8 element Beryllium Worker Protection Model (BWPM) which includes the use of a recommended exposure guideline (REG) for airborne beryllium of 0.2 µg/m³ as a time-weighted average (TWA) limit for an 8-hour work day. Subsequent NIOSH studies have shown that the BWPM has reduced but not eliminated the risk of beryllium sensitization and chronic beryllium disease (CBD) in workers. Information on the BWPM can be found at www.berylliumssafety.com or by contacting Materion at +1 800.862.4118. In August 2015, OSHA proposed a comprehensive occupational health standard for beryllium which includes a Permissible Exposure Limit (PEL) of 0.2 µg/m³ as an 8-hour TWA. In its evaluation, OSHA concluded that "despite the reduction in risk expected with the proposed PEL, the risk to workers with average exposure levels of 0.2 µg/m³ is still clearly significant." (Preamble to Proposed Rule, Occupational Exposure to Beryllium, Docket #OSHA-H005C-2006-0870, at 371.) Therefore, Materion recommends that beryllium users reduce airborne exposures to the lowest feasible level and carefully apply all elements of the BWPM.

The American Conference of Governmental Industrial Hygienists (ACGIH®) is a scientific body that has developed guidelines for all listed substances. In its development documents, the ACGIH® states that "Threshold Limit Values and Biological Exposure Indices represent conditions under which ACGIH® believes that nearly all workers may be repeatedly exposed without adverse health effects. They are not fine lines between safe and dangerous exposures, nor are they a relative index of toxicology."

Specific genetic factors have been identified and shown to increase an individual's susceptibility to CBD. Medical testing is available to detect genetic factors in individuals.

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Whenever possible, the use of local exhaust ventilation or other engineering controls is the preferred method of controlling exposure to airborne particulate. Where utilized, exhaust inlets to the ventilation system must be positioned as close as possible to the source of airborne generation. Avoid disruption of the airflow in the area of a local exhaust inlet by equipment such as a man-cooling fan. Check ventilation equipment regularly to ensure it is functioning properly. Provide training on the use and operation of ventilation to all users. Use qualified professionals to design and install ventilation systems.

Individual protection measures, such as personal protective equipment

General information

Not available.

Eye/face protection

Wear approved safety glasses, goggles, face shield and/or welder's helmet when risk of eye injury is present, particularly during operations that generate dust, mist or fume.

Skin protection

- Hand protection

Wear gloves to prevent contact with particulate or solutions. Wear gloves to prevent metal cuts and skin abrasions during handling.

- Other

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Protective overgarments or work clothing must be worn by persons who may become contaminated with particulate during activities. Skin contact with this material may cause, in some sensitive individuals, an allergic dermal response. Particulate that becomes lodged under the skin has the potential to induce sensitization and skin lesions.

Respiratory protection

When airborne exposures exceed or have the potential to exceed the occupational exposure limits, approved respirators must be used as specified by an Industrial Hygienist or other qualified professional. Respirator users must be medically evaluated to determine if they are physically capable of wearing a respirator. Quantitative and/or qualitative fit testing and respirator training must be satisfactorily completed by all personnel prior to respirator use. Users of tight fitting respirators must be clean shaven on those areas of the face where the respirator seal contacts the face. Use pressure-demand airline respirators when performing jobs with high potential exposures such as changing filters in a baghouse air cleaning device.

Thermal hazards

Not applicable.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practices.

Environmental exposure controls

Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state

Solid.

Form

Crystalline.

Colour

White.

Odour

Vinegar-like.

Odour threshold	Not applicable.
pH	Not available.
Melting point/freezing point	284 °C (543,2 °F)
Initial boiling point and boiling range	331 °C (627,8 °F)
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Explosive limit - lower (%)	Not applicable.
Explosive limit – upper (%)	Not applicable.

Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not applicable.
Solubility(ies)	
Solubility (water)	Soluble.
Solubility (other)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity	Not applicable.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2. Other information

Density	0,05 lb/in ³
Molecular formula	C ₁₂ H ₁₈ Be ₄ O ₁₃

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation	Fatal if inhaled. May cause cancer by inhalation.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Toxic if swallowed.

Symptoms Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

11.1. Information on toxicological effects

Acute toxicity	Fatal if inhaled. Toxic if swallowed. May cause an allergic skin reaction. May cause respiratory irritation.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
Skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.
Carcinogenicity	May cause cancer.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

IARC Monographs. Overall Evaluation of Carcinogenicity

Beryllium Basic Acetate (CAS 19049-40-2) 1 Carcinogenic to humans.

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Beryllium Basic Acetate (CAS 19049-40-2) Carcinogen category 2.

Reproductive toxicity	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	Due to partial or complete lack of data the classification is not possible.
Mixture versus substance information	No information available.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity	Toxic to aquatic life with long lasting effects.
12.2. Persistence and degradability	No data is available on the degradability of this product.
12.3. Bioaccumulative potential	No data available.
Partition coefficient n-octanol/water (log Kow)	Not available.
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	Not available.
12.6. Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company. Waste codes should be assigned by the user based on the application for which the product was used.
Disposal methods/information	Material should be recycled if possible. Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.

SECTION 14: Transport information

ADR

14.1. UN number	UN1566
14.2. UN proper shipping name	Beryllium compound, n.o.s.
14.3. Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	-
Label(s)	6.1
Hazard No. (ADR)	60
Tunnel restriction code	D/E
14.4. Packing group	II
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number	UN1566
14.2. UN proper shipping name	Beryllium compound, n.o.s.
14.3. Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	-
Label(s)	6.1
14.4. Packing group	II
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number	UN1566
14.2. UN proper shipping name	Beryllium compound, n.o.s.
14.3. Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	-
Label(s)	6.1
14.4. Packing group	II
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN1566
14.2. UN proper shipping name	Beryllium compound, n.o.s.
14.3. Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	-
14.4. Packing group	II
14.5. Environmental hazards	No.
ERG Code	6L
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

14.1. UN number	UN1566
14.2. UN proper shipping name	BERYLLIUM COMPOUND, N.O.S.

14.3. Transport hazard class(es)

Class 6.1(PGI, II)

Subsidiary risk -

14.4. Packing group II

14.5. Environmental hazards

Marine pollutant No.

EmS F-A, S-A

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ADN; ADR; IATA; IMDG; RID



SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use

Beryllium Basic Acetate (CAS 19049-40-2)

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Beryllium Basic Acetate (CAS 19049-40-2)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Beryllium Basic Acetate (CAS 19049-40-2)

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Beryllium Basic Acetate (CAS 19049-40-2)

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work. Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations Not available.

References Not available.

Information on evaluation method leading to the classification of mixture Not available.

Training information Not available.

Other information Added "for research and development use only" statement to Section 15.

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To avoid any misunderstandings or incorrect assumptions by the receiver of the safety information, it should be made clear that the supplied information is not in the form of a Safety Data Sheet (SDS), but is actually a voluntary Product Information Sheet closely following the guidelines of the Safety Data Sheet – COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 (REACH/SDS).