1. Identification

Product identifier

CONOSTAN®Beryllium (Be) Standard

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Reagents and laboratory chemicals
Only for laboratory and analysis purposes.

Uses advised against

Do not use for private purposes (household).

Details of the supplier of the safety data sheet

Details of the supplier of the safety data sheet

Company name:	AnalytiChem Services, Unipessoal, Lda
Street:	Rua de Júlio Dinis 676 7º
Place:	P-4050-320 Porto
Telephone:	+351 226002917
E-mail:	info@analytichem.com
Contact person:	SDS service department
E-mail:	SDS@analytichem.com
Internet:	www.analytichem.com
Responsible Department:	SDS service department

Supplier or manufacturer details

Company name:	AnalytiChem Canada Inc. Québec, CANADA
Street:	21800 Clark Graham Ave
Place:	CDN-H9X 4B6 Baie-D'Urfé
Telephone:	+1 (800) 361-6820 Telefax: +1 (800) 253-5549
E-mail:	info@analytichem.com
Contact person:	SDS service department
E-mail:	SDS@analytichem.com
Internet:	www.analytichem.com
Responsible Department:	AnalytiChem: EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20 EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200 EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848 UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500 USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378 Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701 Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333

Emergency phone number: +1 703-741-5970 (CHEMTREC)

Further Information

This product is a mixture. REACH Registration Number see section 3.

2. Hazard(s) identification

Classification of the chemical

Regulation (EC) No 1272/2008

Carc. 1B; H350i

Full text of hazard statements: see SECTION 16.

Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

beryllium

Signal word: Danger

Pictograms:

Hazard statements

H350i	May cause cancer by inhalation
EUH208	Contains beryllium. May produce an allergic reaction.

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	If exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

Special labeling

Restricted to professional users.

Hazards not otherwise classified

No data available

3. Composition/information on ingredients

Mixtures

Relevant ingredients

CAS No	Components			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7440-41-7	beryllium			< 1 %
	231-150-7	004-001-00-7		
	Carc. 1B, Acute Tox. 2, Acute Tox. 3, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3, STOT RE 1; H350i H330 H301 H315 H319 H317 H335 H372			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Components	Quantity
	Specific Conc. Limits, M-factors and ATE		
7440-41-7	231-150-7	beryllium	< 1 %
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); oral: ATE = 100 mg/kg		

Further Information

The following materials are present at less than 0.1%:
Blended Alkyl aryl Sulfonate or as indicated, including
Silver Compound
Aluminum Compound
Chromium Compound
Copper Compound
Iron Compound
Magnesium Compound
Sodium Compound
Nickel Compound
Lead Compound
Silicon Compound
Tin Compound
Titanium Compound
A typical concentration of the above metal compound is 100 ppm.
Refer to container for the exact concentration.

4. First-aid measures

Description of first aid measures

General information

No data available

After inhalation

Provide fresh air. Call a doctor if you feel unwell.
If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

After contact with skin

Wash immediately with: Water, Soap
Take off immediately all contaminated clothing and wash it before reuse.
In case of skin irritation, consult a physician.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.
In case of eye irritation consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs.
Call a physician immediately.

Most important symptoms and effects, both acute and delayed

Pneumonia
Gastrointestinal complaints

Indication of any immediate medical attention and special treatment needed

No data available

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Foam
Carbon dioxide (CO2)
Extinguishing powder
Water

Unsuitable extinguishing media

no restriction

Specific hazards arising from the chemical

Combustible liquids
Hazardous combustion products
In case of fire may be liberated:
Carbon dioxide (CO2)
Carbon monoxide
Nitrogen oxides (NOx)
Sulphur oxides
In case of warming:
Vapors are heavier than air, spread along floors and form explosive mixtures with air.

Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus.
Wear full chemical protective clothing.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Use water spray jet to protect personnel and to cool endangered containers.
Move undamaged containers from immediate hazard area if it can be done safely.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

In case of warming:
Vapors are heavier than air, spread along floors and form explosive mixtures with air.
Take precautionary measures against static discharges.

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Consult an expert
Do not breathe dust/fume/gas/mist/vapors/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment (PPE): see section 8

Environmental precautions

Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

For containment

Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Collect in closed and suitable containers for disposal.
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear breathing apparatus if exposed to vapors/dusts/aerosols.

Reference to other sections

Safe handling: see section 7
Personal protection equipment (PPE): see section 8
Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Read label before use. Handle and open container with care.
When using do not eat, drink, smoke, sniff. Keep container tightly closed.
Use personal protection equipment.
Do not breathe vapor or spray.
Provide adequate ventilation.

Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharges.
In case of warming:
Vapors are heavier than air, spread along floors and form explosive mixtures with air.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.
The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of the protective agents should be clarified with their suppliers.

Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.
Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store in a place accessible by authorized persons only.
Store in a well-ventilated place.
Keep container tightly closed.

Hints on joint storage

TRGS 510

Further information on storage conditions

Keep cool. Protect from sunlight.

Specific end use(s)

Laboratory chemicals

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No	Substance	ppm	mg/m³		Category	Origin
7440-41-7	Beryllium & beryllium compounds (as Be)				as low as possible	REL
7440-41-7	Beryllium (inhalable fraction)	0.05	0.00005		TWA (8 h)	ACGIH-2025
7440-41-7	Beryllium and beryllium compounds (as Be)	-	0.0002		TWA (8 h)	PEL
		-	0.002		STEL (15 min)	PEL
		-	0.025		Peak (30 min)	PEL
-	Mineral oil, excluding metal working fluids (inhalable fraction); Pure, highly and severely refined		5		TWA (8 h)	ACGIH-2025
8012-95-1	Oil mist (mineral)	-	5		TWA (8 h)	REL
		-	10		STEL (15 min)	REL
8012-95-1	Oil mist, mineral	-	5		TWA (8 h)	PEL

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
8042-47-5	White mineral oil, petroleum		
Worker DNEL, long-term	inhalation	systemic	160 mg/m³
Worker DNEL, long-term	dermal	systemic	220 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	35 mg/m³
Consumer DNEL, long-term	dermal	systemic	93 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	40 mg/kg bw/day

Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Face protection umbrella

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Take off immediately all contaminated clothing and wash it before reuse.

Wash hands and face before breaks and after work and take a shower if necessary.

Draw up and observe skin protection programme.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

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. A respiratory protection program that meets OSHA's 29 CFR 1910.134 requirements must be followed whenever workplace conditions warrant a respirator's use.

Thermal hazards

No data available

Environmental exposure controls

Do not allow to enter into surface water or drains.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Color:	brown
Odor:	like: Hydrocarbons
Odour threshold:	No data available
Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	>315 °C
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	No data available
Decomposition temperature:	No data available
pH-Value:	No data available
Viscosity / kinematic: (at 40 °C)	70 mm²/s
Water solubility:	No data available

Solubility in other solvents

No data available

Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapor pressure:	No data available
Vapor pressure:	No data available
Density (at 15,6 °C):	0,6-0,9 g/cm³
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

Other information

Information with regard to physical hazard classes

Explosive properties

In case of warming:

Vapors are heavier than air, spread along floors and form explosive mixtures with air.

Sustained combustibility:	No data available

Self-ignition temperature

Solid:	No data available
Gas:	No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	100%
Solid content:	No data available
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
	No data available
Viscosity / dynamic:	No data available
Flow time:	No data available

Further Information

No data available

10. Stability and reactivity

Reactivity

In case of warming:
Vapours may form explosive mixtures with air.

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Oxidising agent

Conditions to avoid

Heat
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Incompatible materials

No data available

Hazardous decomposition products

in case of fire, see:
SECTION 5: Fire fighting measures

Further information

No data available

11. Toxicological information

Information on toxicological effects

Toxicocinetics, metabolism and distribution

No data available

Acute toxicity

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 5000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 50 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
7440-41-7	beryllium				
	oral	ATE 100 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation dust/mist	ATE 0,05 mg/l			

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.
slightly irritant but not relevant for classification.
Repeated exposure may cause skin dryness or cracking.
Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

Sensitizing effects

Based on available data, the classification criteria are not met.
Contains beryllium. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Route(s) of Entry

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

Information on other hazards

Endocrine disrupting properties

No data available

Other information

No data available

Further information

Gastrointestinal complaints
Pneumonia
Depression of central nervous system

12. Ecological information

Ecotoxicity

Based on available data, the classification criteria are not met.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other adverse effects

Do not allow to enter into surface water or drains.

Further information

Avoid release to the environment.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.
Send to a physico-chemical treatment facility under observation of official regulations.
Do not allow to enter into surface water or drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.
Waste codes/waste designations according to EWC/AVV

14. Transport information

Land transport (ADR/RID)

UN number or ID number:	No dangerous good in sense of this transport regulation.
UN proper shipping name:	No dangerous good in sense of this transport regulation.
Transport hazard class(es):	No dangerous good in sense of this transport regulation.
Packing group:	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

UN number or ID number:	No dangerous good in sense of this transport regulation.
UN proper shipping name:	No dangerous good in sense of this transport regulation.
Transport hazard class(es):	No dangerous good in sense of this transport regulation.
Packing group:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

UN number or ID number:	No dangerous good in sense of this transport regulation.
UN proper shipping name:	No dangerous good in sense of this transport regulation.
Transport hazard class(es):	No dangerous good in sense of this transport regulation.
Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:	No dangerous good in sense of this transport regulation.
UN proper shipping name:	No dangerous good in sense of this transport regulation.
Transport hazard class(es):	No dangerous good in sense of this transport regulation.
Packing group:	No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

15. Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):
Entry 3, Entry 28, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

Water hazard class (D): 2 - obviously hazardous to water

16. Other information

Abbreviations and acronyms

Acute Tox. 2: Acute toxicity
Acute Tox. 3: Acute toxicity
Skin Irrit. 2: Skin irritation
Eye Irrit. 2: Eye irritation
Skin Sens. 1: Skin sensitisation
Carc. 1B: Carcinogenicity
STOT SE 3: Specific target organ toxicity single exposure
STOT RE 1: Specific target organ toxicity repeated or prolonged exposure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008

Classification	Classification procedure
Carc. 1B; H350i	Calculation method

Relevant H statements (full text)

H301	Toxic if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H350i	May cause cancer by inhalation
H372	Causes damage to organs through prolonged or repeated exposure
EUH208	Contains beryllium. May produce an allergic reaction.

Other data

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.
The receiver of our product is singularly responsible for adhering to existing laws and regulations.
Provide appropriate information, instructions and training to users.

Identified uses

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	PC21	-	-	21	15	-	-	-	
2	PROC15	-	-	-	15	-	-	-	

LCS: Life cycle stages
SU: Sectors of use
PC: Product categories
PROC: Process categories
ERC: Environmental release categories
AC: Article categories
TF: Technical functions

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)