



<b>Signal word</b>	Danger
<b>Hazard statements</b>	
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H360F	May damage fertility.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

#### Precautionary statements

##### Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

##### Response

P302 + P352	IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

##### Storage

P405	Store locked up.
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##### Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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**Supplemental label information** EUH066 - Repeated exposure may cause skin dryness or cracking.

**2.3. Other hazards** Not a PBT or vPvB substance or mixture.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Cobalt bis(2-ethylhexanoate)	55-65	136-52-7 205-250-6	01-2119524678-29	-	
<b>Classification:</b>	Skin Sens. 1A;H317, Eye Irrit. 2;H319, Repr. 1B;H360F, Aquatic Acute 1;H400, Aquatic Chronic 3;H412				
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	30-40	no CAS# 918-481-9	01-2119457273-39	-	
<b>Classification:</b>	Asp. Tox. 1;H304				P

#### List of abbreviations and symbols that may be used above

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

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Composition comments** The full text for all H-statements is displayed in section 16.

## SECTION 4: First aid measures

#### General information

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.

<b>4.2. Most important symptoms and effects, both acute and delayed</b>	Dizziness. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash.
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

## SECTION 5: Firefighting measures

<b>General fire hazards</b>	No unusual fire or explosion hazards noted.
<b>5.1. Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Alcohol resistant foam. Powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>5.2. Special hazards arising from the substance or mixture</b>	During fire, gases hazardous to health may be formed.
<b>5.3. Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Special fire fighting procedures</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

<b>6.1. Personal precautions, protective equipment and emergency procedures</b>	
<b>For non-emergency personnel</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>For emergency responders</b>	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
<b>6.2. Environmental precautions</b>	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
<b>6.3. Methods and material for containment and cleaning up</b>	Use water spray to reduce vapours or divert vapour cloud drift. The product is immiscible with water and will spread on the water surface. Prevent entry into waterways, sewer, basements or confined areas.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use.
<b>6.4. Reference to other sections</b>	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage

<b>7.1. Precautions for safe handling</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist/vapours. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
<b>7.2. Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).
<b>7.3. Specific end use(s)</b>	Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

## Occupational exposure limits

### Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	TWA	300 mg/m <sup>3</sup>
		50 ppm

### Poland

Components	Type	Value
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	STEL	900 mg/m <sup>3</sup>
	TWA	300 mg/m <sup>3</sup>

### Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
Cobalt bis(2-ethylhexanoate) (CAS 136-52-7)	TWA	0,05 mg/m <sup>3</sup>	Dust/aerosol, inhalable.
		0,05 mg/m <sup>3</sup>	Inhalable fraction.
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	STEL	600 mg/m <sup>3</sup>	
		100 ppm	
	TWA	300 mg/m <sup>3</sup> 50 ppm	

### Biological limit values

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

### Recommended monitoring procedures

Follow standard monitoring procedures.

### Derived no effect levels (DNELs)

Not available.

### Predicted no effect concentrations (PNECs)

Not available.

## 8.2. Exposure controls

### Appropriate engineering controls

Good general ventilation 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. Provide eyewash station.

### Individual protection measures, such as personal protective equipment

#### General information

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

#### Eye/face protection

Wear safety glasses with side shields (or goggles).

#### Skin protection

##### - Hand protection

Use protective gloves made of: Nitrile. Polyvinyl chloride (PVC).

##### - Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

#### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### Hygiene measures

Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

### Environmental exposure controls

Inform appropriate managerial or supervisory personnel of all environmental releases. Good general ventilation 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.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state	Liquid.
Form	Liquid.
Colour	Violet

**Odour** Hydrocarbon-like.

**Odour threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** > 180 °C (> 356 °F) Reference substance: Solvent

**Flash point** > 61,0 °C (> 141,8 °F) Closed cup

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

#### Upper/lower flammability or explosive limits

**Explosive limit - lower (%)** 0,6 % Reference substance: Solvent

**Explosive limit – upper (%)** 7 % Reference substance: Solvent

**Vapour pressure** 1,5 hPa (20°C) Reference substance: Solvent

**Vapour density** Not available.

**Relative density** Not available.

#### Solubility(ies)

**Solubility (water)** Insoluble

**Solubility (other)** Alcohols, Glycol, Organic Solvents, Hydrocarbons

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** > 230 °C (> 446 °F) Reference substance: Solvent

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Explosive properties** Not explosive.

**Oxidising properties** Not oxidising.

### 9.2. Other information

**Density** 0,99 g/cm<sup>3</sup> (20°C)

**Kinematic viscosity** > 20,5 mm<sup>2</sup>/s

**Kinematic viscosity temperature** 40 °C (104 °F)

**pH in aqueous solution** 6,5 - 7,5 Aqueous dispersion, 10%

## 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** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. 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** Prolonged inhalation may be harmful.

**Skin contact** May cause an allergic skin reaction.

**Eye contact** Causes serious eye irritation.

<b>Ingestion</b>	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
<b>Symptoms</b>	Dizziness. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash.

### 11.1. Information on toxicological effects

#### Acute toxicity

Components	Species	Test Results
Cobalt bis(2-ethylhexanoate) (CAS 136-52-7)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg, 24 Hours
<b>Oral</b>		
LD50	Rat	3129 mg/kg
<b>Skin corrosion/irritation</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.	
<b>Respiratory sensitisation</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Skin sensitisation</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Carcinogenicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)</b>		
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (CAS no CAS#)		
<b>Reproductive toxicity</b>	May damage fertility.	
<b>Specific target organ toxicity - single exposure</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Specific target organ toxicity - repeated exposure</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Mixture versus substance information</b>	No information available.	
<b>Other information</b>	Not available.	

## SECTION 12: Ecological information

<b>12.1. Toxicity</b>	Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.
<b>12.2. Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture.
<b>12.3. Bioaccumulative potential</b>	No data available.
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	No data available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.
<b>12.6. Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
<b>12.7. Additional information</b>	

#### Estonia Dangerous substances in groundwater Data

Cobalt bis(2-ethylhexanoate) (CAS 136-52-7)	Cobalt (Co) 300 ug/l
	Cobalt (Co) 5 ug/l

#### Estonia Dangerous substances in soil Data

Cobalt bis(2-ethylhexanoate) (CAS 136-52-7)	Cobalt (Co) 20 mg/kg
	Cobalt (Co) 300 mg/kg
	Cobalt (Co) 50 mg/kg

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	Dispose of in accordance with local regulations. 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).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>EU waste code</b>	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Disposal methods/information</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Special precautions</b>	Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

<b>14.1. UN number</b>	UN3082
<b>14.2. UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cobalt bis(2-ethylhexanoate))
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	9
<b>Subsidiary risk</b>	-
<b>Hazard No. (ADR)</b>	Not available.
<b>Tunnel restriction code</b>	Not available.
<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	Yes
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

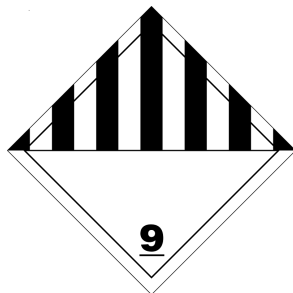
### IATA

<b>14.1. UN number</b>	UN3082
<b>14.2. UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s. (Cobalt bis(2-ethylhexanoate))
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	9
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	Yes
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

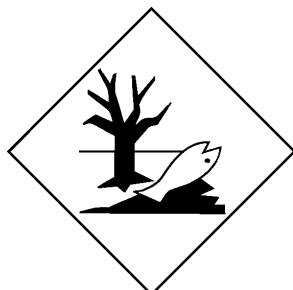
### IMDG

<b>14.1. UN number</b>	UN3082
<b>14.2. UN proper shipping name</b>	Environmentally hazardous substances, liquid, n.o.s. (Cobalt bis(2-ethylhexanoate)), MARINE POLLUTANT
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	9
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>EmS</b>	F-A, S-F
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not established.

ADR; IATA; IMDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

## 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 as amended**

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, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (CAS no CAS#)

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

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (CAS no CAS#)

#### Other EU regulations

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

Not listed.

#### Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.



<b>National regulations</b>	According to Directive 92/85/EEC as amended, pregnant women should not work with the product, if there is the least risk of exposure.  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, as amended. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.
<b>Water hazard class</b> <b>AwSV</b>	WGK2
<b>15.2. Chemical safety assessment</b>	No Chemical Safety Assessment has been carried out.
<b>SECTION 16: Other information</b>	
<b>List of abbreviations</b>	Not available.
<b>References</b>	Not available.
<b>Information on evaluation method leading to the classification of mixture</b>	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
<b>Full text of any H-statements not written out in full under Sections 2 to 15</b>	H304 May be fatal if swallowed and enters airways. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H360F May damage fertility. H400 Very toxic to aquatic life. H412 Harmful to aquatic life with long lasting effects.
<b>Revision information</b>	None.
<b>Training information</b>	Follow training instructions when handling this material.
<b>Disclaimer</b>	Borchers sas cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.