

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 08/21/2017

Reviewed on 08/21/2017

1 Identification

- **Product Identifier**
- **Trade name:** SYNCURVE™
- **Product Number:** 603-SC2 (OSHA)
- **Relevant identified uses of the substance or mixture and uses advised against:**
Used as a lubricant to reduce the friction coefficient between the rail gauge face and wheel flange.
- **Product Description** Ultra high performance grease
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
LB Foster Rail Technologies Corp.
4041 Remi Place
Burnaby, B.C.
Office: +1 (604) 415-3000
Facsimile: +1 (604) 420-6757
- **Emergency telephone number:** +1 (352) 323-3500 (INFOTRAC Contract #103390)

* 2 Hazard(s) Identification

- **Classification of the substance or mixture:**
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.
- **Label elements:**
- **GHS label elements** Non-Regulated Material
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:** Non-Regulated Material
- **Unknown acute toxicity:**
1.5 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture: consisting of the following components.

- **Dangerous Components:**

CAS: 64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic	60-90%
CAS: 68611-44-9	Fumed Silica	5-10%
	⚠ STOT SE 3, H335	

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 08/21/2017

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Trade name: SYNCURVE™

CAS: 128-37-0 RTECS: GO 7875000	butylated hydroxytoluene ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302	≤ 2.5%
CAS: 80939-62-4	C11-14 Branched Alkylamines ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Acute 2, H401	≤ 2.5%

4 First-Aid Measures

- **Description of first aid measures:**
- **General information:** No special measures required.
- **After inhalation:** Move to fresh air; give oxygen if breathing is difficult. Call a physician if symptoms persist.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if symptoms persist.
- **After swallowing:**
If vomiting occurs, the head should be kept low so that the vomit does not enter the lungs (aspiration). Once the vomiting ceases, place the person in the recovery position with the legs slightly raised.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure. If sensitization occurs, future contact with the material should be avoided.

5 Fire-Fighting Measures

- **Extinguishing media:**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters:**
- **Protective equipment:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:**
Wear protective equipment. Keep unprotected persons away.
Avoid contact with skin, eyes and clothing.
Material can create slippery conditions.
- **Environmental precautions:** Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

(Contd. on page 3)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 08/21/2017

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7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
Avoid contact with eyes, skin and clothing. Avoid inhalation of vapors. Use with adequate ventilation. Use appropriate personal protection equipment (Section 8). Wash thoroughly after handling.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities:**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool, dry place.
- **Information about storage in one common storage facility:** See Section 10 (Incompatible materials)
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**

- **Components with occupational exposure limits:**

64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic

STEL	Short-term value: 10 mg/m ³
TWA	Short-term value: 10 mg/m ³

68611-44-9 Fumed Silica

ACGIH	Short-term value: 3 mg/m ³ Long-term value: 10 mg/m ³
OSHA PEL	Short-term value: 6 mg/m ³

128-37-0 butylated hydroxytoluene

REL	Long-term value: 10 mg/m ³
TLV	Long-term value: 2* mg/m ³ *as inhalable fraction and vapor

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

- **Penetration time of glove material:**
The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

(Contd. on page 4)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 08/21/2017

Reviewed on 08/21/2017

Trade name: SYNCURVE™· **Eye protection:**

Safety glasses

9 Physical and Chemical Properties· **Information on basic physical and chemical properties**· **General Information**· **Appearance:****Form:** Translucent semi-solid gel**Color:** Translucent white· **Odor:** Mild· **Odor threshold:** Not determined.· **Change in condition****Melting point/Melting range:** Not determined.**Boiling point/Boiling range:** 315°C (°F)· **Flash point:** 212°C (°F)· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:** 400°C (°F)· **Decomposition temperature:** Not determined.· **Auto igniting:** Product is not self-igniting.· **Danger of explosion:** Product does not present an explosion hazard.· **Explosion limits:****Lower:** Not determined.**Upper:** Not determined.· **Vapor pressure:** Not determined.· **Density:****Relative density @ 20°C (68 °F):** 0.85-0.87**Vapor density:** Not determined.**Evaporation rate:** Not determined.· **Solubility in / Miscibility with:****Water:** Insoluble.· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:****Dynamic:** Not determined.**Kinematic:** Not determined.· **Other information:** No further relevant information available.**10 Stability and Reactivity**· **Reactivity:** No further relevant information available.· **Chemical stability:** Stable under normal conditions.· **Thermal decomposition / conditions to be avoided:**

Carbon dioxide and carbon monoxide may form when heated to decomposition

(Contd. on page 5)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 08/21/2017

Reviewed on 08/21/2017

Trade name: SYNCURVE™

- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Extremes of temperature and direct sunlight.
- **Incompatible materials:** Strong oxidizing agents.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic

Oral	LD50	>5000 mg/kg (Rat)
Dermal	LD50	>5000 mg/kg (Rabbit)
Inhalative	LC50/4 h	>5 mg/l (Rat)

68611-44-9 Fumed Silica

Oral	LD50	>5000 mg/kg (Rat)
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128-37-0 butylated hydroxytoluene

Oral	LD50	890 mg/kg (Rat)
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80939-62-4 C11-14 Branched Alkylamines

Oral	LD50	>2000 mg/kg (Rat)
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- **Primary irritant effect:**
- **On the skin:** Mild irritant effect.
- **On the eye:** Mild irritant effect.
- **Additional toxicological information:**
The product is not subject to classification according to internally approved calculation methods for preparations.
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **Carcinogenic categories:**
- **IARC (International Agency for Research on Cancer):**
Group 1 - Carcinogenic to humans
Group 2A - Probably carcinogenic to humans
Group 2B - Possibly carcinogenic to humans
Group 3 - Not classifiable as to its carcinogenicity to humans
Group 4 - Probably not carcinogenic to humans

128-37-0	butylated hydroxytoluene	3
9002-84-0	Polytetrafluoroethylene	3

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** Rainbow Trout 96-hr LLR50 was >100 mg

(Contd. on page 6)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

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- **Persistence and degradability:**

In 28 days incubation, "SYNCURVE™" was mineralized by 64% . SYNCURVE™ appears to meet the criteria for "ultimately biodegradable" materials, meaning that there is a reasonable expectation that it will be completely mineralized in aerobic environments.

- **Behavior in environmental systems:**

- **Bioaccumulative potential:** No further relevant information available.

- **Mobility in soil:** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment:**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods:**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.

- **Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport Information

- **UN-Number:**

- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material

- **UN proper shipping name:**

- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material

- **Transport hazard class(es):**

- **DOT, ADR/ADN, ADN, IMDG, IATA**

- **Class:** Non-Regulated Material

- **Packing group:**

- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material

- **Environmental hazards:** Not applicable.

- **Special precautions for user:** Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

- **UN "Model Regulation":** Non-Regulated Material

* 15 Regulatory Information

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

- **SARA (Superfund Amendments and Reauthorization):**

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

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· TSCA (Toxic Substances Control Act):	
All ingredients are listed or exempt from listing.	
· California Proposition 65:	
· Chemicals known to cause cancer:	
None of the ingredients are listed.	
· Chemicals known to cause reproductive toxicity for females:	
None of the ingredients are listed.	
· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients are listed.	
· Chemicals known to cause developmental toxicity:	
None of the ingredients are listed.	
· Carcinogenic categories:	
· EPA (Environmental Protection Agency):	
None of the ingredients are listed.	
· TLV (Threshold Limit Value established by ACGIH):	
128-37-0 butylated hydroxytoluene	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health):	
None of the ingredients are listed.	
· GHS label elements Non-Regulated Material	
· Hazard pictograms: Non-Regulated Material	
· Signal word: Non-Regulated Material	
· Hazard statements: Non-Regulated Material	
· National regulations:	
None of the ingredients are listed.	
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.	

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of preparation / last revision:** 08/21/2017 / 11

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety and Health
 OSHA: Occupational Safety & Health Administration

(Contd. on page 8)

Safety Data Sheet (SDS)

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Trade name: SYNCURVE™

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

*** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106