



SAFETY DATA SHEET

CONFORMS TO OSHA HAZARD COMMUNICATION STANDARD
(HCS) 29 CFR 1910.1200

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Revision Date 5/24/2016
Supersedes Date 7/30/2015

SECTION 1. IDENTIFICATION

Product identifier: JBT H1 Food-Grade Formula 546

Part number: 365549A; 365549B

Identified uses: Lubricant where there may be incidental food contact

Uses advised against: Not intended for direct food contact. Other uses advised against may be specified elsewhere in this SDS.

Supplier: John Bean Technologies
70 West Madison
Suite 4400
Chicago, IL 60602 USA

Email contact: 1jbtlubricantinfo@jbt.com

Non-emergency contact: Phone: 800-835-3230

Emergency telephone: 3E Company: North America 800-451-8346
International 760-602-8703

SECTION 2. HAZARD(S) IDENTIFICATION

Classification: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Label elements

Pictograms: Not applicable

Signal word: Not applicable

Hazard statements: Not applicable

Precautionary statements: Not applicable

Hazards not otherwise classified: Not applicable.

Additional information: Not applicable.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Composition:	Chemical name	%	CAS #	Impurities
	Polyalphaolefin	50-95	68037-01-4	None

SECTION 4. FIRST-AID MEASURES

First aid measures

Eye contact: Remove contact lenses, if wearing, and flush eyes with water for at least 15 minutes or until irritation subsides. If irritation persists, consult a physician.

Skin contact: Remove clothing and shoes, if contaminated. Wash skin with soap and water. Wash or clean contaminated clothing before reuse and discard oil-soaked shoes. If irritation persists, consult a physician.

Ingestion: If swallowed, DO NOT induce vomiting. As a precaution, give the person a glass of water to drink and seek medical attention. Never give anything by mouth to an unconscious person. Consult a physician.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment available: No further relevant information available.

General information: No further relevant information available.

SECTION 5. FIRE-FIGHTING MEASURES

<u>Suitable extinguishing media:</u>	Extinguishing media include dry chemical, alcohol foam, and carbon dioxide. Do not use direct stream of water. Water may be used to keep fire-exposed containers cool.
<u>Unsuitable extinguishing media:</u>	Do not use direct stream of water.
<u>Specific hazards:</u>	Pressure build-up due to heat exposure may cause containers to rupture. Use water spray to keep containers cool.
<u>Advice for firefighters:</u>	Firefighters should wear full protective gear, including helmet. Use supplied-air breathing equipment for enclosed or confined space or as otherwise needed.

SECTION 6. ACCIDENTAL RELEASE MEASURES

<u>Personal precautions, protective equipment and emergency procedures:</u>	In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. Keep away from ignition sources. Wear protective equipment. Keep unprotected persons away.
<u>Environmental precautions:</u>	Prevent entry into sewers, waterways or confined areas by diking or impounding. Dike far ahead of spill for later recovery and disposal. Advise authorities if the product has entered or may enter sewers, watercourses, or extensive land areas.
<u>Methods for containment and cleaning up</u>	Land spill: Stop leak if you can do so without risk. Recover free product using non-sparking tools. Add sand, earth, or other suitable absorbent material to the spill area. Recover by pumping or with suitable absorbents. Dispose of in accordance with national and/or local regulations relating to waste disposal. Water spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

SECTION 7. HANDLING AND STORAGE

<u>Precautions for safe handling:</u>	Keep away from heat and direct sunlight. Ensure good ventilation/exhaustion at the workplace.
<u>Conditions for safe storage, including any incompatibilities:</u>	Store in a cool, dry place in tightly sealed containers. Store out of direct sunlight. Do not store near heat, sparks, open flame, pilot lights, static electricity, or other sources of ignition. Do not store where temperature may exceed 49°C (120°F). Store away from oxidizing agents. Rotate stock.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Workplace exposure limits:</u>	<u>Chemical name</u>	<u>Exposure limit and source</u>
	Polyalphaolefin	5 mg/m ³ (mist), OSHA
<u>Exposure controls</u>		
Engineering controls:	Provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapors below their respective occupational exposure limits.	
Ventilation:	Use in a well-ventilated area. See Engineering Controls.	
Personal hygiene:	Wash skin thoroughly after contact, before breaks and meals and at the end of the work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.	
Eye protection:	Chemical splash goggles or face shield in compliance with OSHA regulations are advised when eye contact may occur.	
Hand protection:	Any lined non-permeable rubber gloves.	
Respiratory protection:	Use with adequate ventilation. Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure. In case of insufficient ventilation, wear suitable respiratory equipment. A NIOSH/MSHA-approved air-supplied respirator is advised in absence of proper environmental control.	

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Appearance / odor:</u>	Water white colored lube oil with little or no odor	<u>Upper flammability limit:</u>	Not available
		<u>Lower flammability limit:</u>	Not available
<u>Physical state:</u>	Liquid	<u>Vapor pressure:</u>	Not available
<u>Odor threshold:</u>	Not available	<u>Vapor density:</u>	Not available
<u>pH:</u>	Not available		
<u>Melting / freezing point:</u>	Not available	<u>Relative density:</u>	0.83 (typical)
<u>Initial boiling point and boiling range:</u>	Not available	<u>Solubility in water:</u>	Nil
<u>Flash point:</u>	489°F (254°C), ASTM D 92	<u>Partition coefficient (n-octanol/water):</u>	Not available

Evaporation rate: Not available

Autoignition temperature: Not available

Flammability (solid, gas): Not applicable

Decomposition temperature: Not available

Viscosity: Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions.

Chemical stability: Stable under recommended conditions.

Possibility of hazardous reactions: Hazardous reactions are not expected to occur.

Conditions and materials to avoid: Avoid contact with heat, open flames, and oxidizing agents.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, smoke and irritating vapors as products of incomplete combustion.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact: No known significant effects or critical hazards.

Skin contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

<u>Component information:</u>	<u>Components</u>	<u>LD₅₀</u>	<u>LC₅₀</u>
	Polyalphaolefin	>5000 mg/kg (oral, rat)	>5.2 mg/l/4h (inhalation, rat)

Information on physical, chemical and toxicological effects

Symptoms: See Section 4 of this SDS for symptoms.

Delayed and immediate effects, and chronic effects, from short and long-terms exposure

Effects: No further relevant information available.

Carcinogenicity: This product does not contain a carcinogen or potential carcinogen as listed by NTP or IARC.

Numerical measures of toxicity: Not determined

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available

<u>Component information:</u>	<u>Components</u>	<u>L(E)C₅₀</u>
	Polyalphaolefin	>1000 mg/l/48h (Daphnia magna)

Persistence and degradability: Not determined

Bioaccumulative potential: Not determined

Mobility in soil: Not available

Other adverse effects: Not determined

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods: Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Consult national or regional authorities for proper disposal and reporting procedures.

SECTION 14. TRANSPORTATION INFORMATION

Dangerous goods descriptions may not reflect package size, quantity, end-use or region-specific exceptions that can be applied to shipments. Consult shipping documents for material-specific descriptions.

Hazard Packing

	<u>Proper Shipping Name:</u>	<u>UN Number:</u>	<u>Class:</u>	<u>Group:</u>	<u>Remarks:</u>
<u>U.S. D.O.T.</u>	Not regulated	None	None	None	None
<u>ADR/RID</u>	Not regulated	None	None	None	None
<u>IMDG</u>	Not regulated	None	None	None	None
<u>IATA</u>	Not regulated	None	None	None	None

SECTION 15. REGULATORY INFORMATION**U.S. Federal Regulations**

SARA Section 302 Extremely Hazardous Substances: This product contains greater than 1.0% of the following chemical(s) on the SARA Extremely Hazardous Substances List: None

SARA Section 304 CERCLA Hazardous Substances: Release of the following chemical(s) at quantities equal to or greater than the reportable quantities (RQ), is subject to reporting to the National Response Center under CERCLA: None

SARA Section 313 Toxic Chemicals: This product contains the following chemical(s) listed in Section 313 at or above the de minimis concentrations: None

TSCA Inventory: All components of this material are on the U.S. TSCA Inventory.

U.S. State Regulations

California Proposition 65 Status: This product does not contain chemical(s) known to the State of California to cause birth defects or other reproductive harm.

California Proposition 65 Listed Components: None

International Regulations

Canada: This product has been classified in accordance with the hazard criteria of WHMIS 2015 and the SDS contains all of the information required by those regulations.

Japan MITI: Not available

Australia: Not available

Switzerland: Not available

SECTION 16. OTHER INFORMATION

Sections Revised: Section 1

Revision Date: 5/24/2016

The information and recommendations contained herein are, to the best of John Bean Technologies's knowledge and belief, accurate and reliable as of the date issued. John Bean Technologies makes no warranty or guarantee, expressed or implied, of their accuracy or reliability, and John Bean Technologies shall not be liable for any loss or damage based upon the criteria supplied by the developers of these rating systems, together with John Bean Technologies's interpretation of the available data.

*** END OF SDS ***

	<u>Proper Shipping Name:</u>	<u>UN Number:</u>	<u>Class:</u>	<u>Group:</u>	<u>Remarks:</u>
U.S. D.O.T.	Not regulated	None	None	None	None
ADR/RID	Not regulated	None	None	None	None
IMDG	Not regulated	None	None	None	None
IATA	Not regulated	None	None	None	None

SECTION 15. REGULATORY INFORMATION

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

U.S. Federal Regulations:

SARA Section 302 Extremely Hazardous Substances This product contains greater than 1.0% of the following chemical(s) on the SARA Extremely Hazardous Substances List:
None

SARA Section 304 CERCLA Hazardous Substances Release of the following chemical(s) at quantities equal to or greater than the reportable quantities (RQ), is subject to reporting to the National Response Center under CERCLA:
None

SARA Section 313 Toxic Chemicals This product contains the following chemical(s) listed in Section 313 at or above the de minimis concentrations:
None

TSCA Inventory All components of this material are on the U.S. TSCA Inventory.

California Proposition 65 Status This product does not contain chemical(s) known to the State of California to cause birth defects or other reproductive harm.
California Proposition 65 Listed Components None

International Regulations:

European Union: This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. A Chemical Safety Assessment has not been carried out.

Canada All components are in compliance with the Canadian Environmental Protection Act. This product has been classified in accordance with the hazard criteria of the CPR and this MSDS contains all the information required by CPR.

Japan MITI Not available

Australia Not available

Switzerland Not available

SECTION 16. OTHER INFORMATION

Sections Revised: New SDS format

Revision Date: 6/1/2015

The information and recommendations contained herein are, to the best of JBT FoodTech's knowledge and belief, accurate and reliable as of the date issued. JBT FoodTech makes no warranty or guarantee, expressed or implied, of their accuracy or reliability, and JBT FoodTech shall not be liable for any loss or damage based up on the criteria supplied by the developers of these rating systems, together with JBT FoodTech's interpretation of the available data.

*** END OF SDS ***

Physical state:	Liquid	Vapor density:	Not available
Odor threshold:	Not available	Relative density:	0.88 (typical)
pH:	Not available		
Melting / freezing point:	Not available	Solubility in water:	Nil
Boiling point / range:	Not available	Partition coefficient (n-octanol/water):	Not available
Flash point:	464°F (240°C), ASTM D 92	Autoignition temperature:	Not available
Evaporation rate:	Not available	Decomposition temperature:	Not available
		Viscosity:	Not available
Upper flammability limit:	Not available	Explosive properties:	Not applicable
Lower flammability limit:	Not available	Oxidizing properties:	Not an oxidizer
Percent Volatile:	Nil		

9.2 Other information No further relevant information available.

SECTION 10. STABILITY AND REACTIVITY

- 10.1 Reactivity:** See sub-sections below.
- 10.2 Chemical stability:** This material is stable under normal conditions.
- 10.3 Possibility of hazardous reactions:** Hazardous reactions are not expected to occur.
- 10.4 Conditions and materials to avoid:** Avoid heat, open flames and oxidizing materials.
- 10.5 Hazardous decomposition products:** Carbon monoxide, carbon dioxide, smoke and irritating vapors as products of incomplete combustion.

11.1 Information on toxicological effects

Acute toxicity / LD₅₀ and LC₅₀ of ingredients:	Components	LD₅₀	LC₅₀
	Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based*	>5000 mg/kg (oral, rat)	Not available
Routes of exposure:	Eyes, skin, ingestion and inhalation		
Other information:	Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis, which can be fatal.		

SECTION 12. ECOLOGICAL INFORMATION

- 12.1 Toxicity:**
- | Components | L(E)C₅₀ |
|---|---------------------------|
| Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based* | Not available |
- Toxicity notes:** Not available
- 12.2 Persistence and degradability:** Not available
- 12.3 Bioaccumulative potential:** Not available
- 12.4 Mobility in soil:** Not available
- 12.5 Persistence, bioaccumulation and toxicity for substance(s):** This product is not, or does not contain, a substance that is a PBT or a vPvB.
- 12.6 Other adverse effects:** No adverse effects are expected.

SECTION 13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods:** Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Consult national or regional authorities for proper disposal and reporting procedures.

SECTION 14. TRANSPORTATION INFORMATION

Dangerous goods descriptions may not reflect package size, quantity, end-use or region-specific exceptions that can be applied to shipments. Consult shipping documents for material-specific descriptions.

4.3 Indication of any immediate medical attention and special treatment available.

No further relevant information available.

SECTION 5. FIREFIGHTING MEASURES

- 5.1 Suitable extinguishing media:** Extinguishing media include dry chemical, alcohol foam, and carbon dioxide. Do not use direct stream of water. Water may be used to keep fire-exposed containers cool.
- Unsuitable extinguishing media:** Do not use direct stream of water.
- 5.2 Special hazards:** Pressure build-up due to heat exposure may cause containers to rupture. Use water spray to keep containers cool.
- 5.3 Advice for firefighters:** Firefighters should wear full protective gear, including helmet. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures** In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. Keep away from ignition sources. Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions:** Prevent entry into sewers, waterways or confined areas by diking or impounding. Dike far ahead of spill for later recovery and disposal. Advise authorities if the product has entered or may enter sewers, watercourses, or extensive land areas.
- 6.3 Containment and clean-up:** **Land spill:** Stop leak if you can do so without risk. Recover free product using non-sparking tools. Add sand, earth, or other suitable absorbent material to the spill area. Recover by pumping or with suitable absorbents. Dispose of in accordance with national and/or local regulations relating to waste disposal.
Water spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.
- 6.4 Reference to other sections:** See Section 7 for information on safe handling. See Section 8 for information on personal protective equipment.

SECTION 7. HANDLING AND STORAGE

- 7.1 Handling:** Keep away from heat and direct sunlight. Ensure good ventilation/exhaustion at the workplace.
See Section 8.2 for information on occupational hygiene.
- 7.2 Storage:** Store in a cool, dry place in tightly sealed containers. Store in out of direct sunlight. Do not store near heat, sparks, open flame, pilot lights, static electricity, or other sources of ignition. Do not store where temperature may exceed 49°C (120°F). Store away from oxidizing agents. Rotate stock.
See Section 10 for information on conditions and materials to avoid.
- 7.3 End Uses:** Refer to Section 1 for identified uses, and uses advised against.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Workplace exposure limits:** **Components** **Exposure limit and source**
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based* 5 mg/m³ (oil mist), OSHA
- 8.2 Exposure controls**
- Engineering controls:** Good general ventilation should be sufficient to control vapors under ambient conditions. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.
- Ventilation:** Use in a well-ventilated area. See Engineering Controls.
- Personal hygiene:** Wash skin thoroughly after contact, before breaks and meals and at the end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.
- Eye protection:** Chemical splash goggles or face shield in compliance with OSHA regulations are advised when eye contact may occur.
- Hand protection:** Any lined non-permeable rubber gloves.
- Respiratory protection:** Use with adequate ventilation. Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure. In case of insufficient ventilation, wear suitable respiratory equipment. A NIOSH/MSHA-approved air-supplied respirator is advised in absence of proper environmental control.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Physical and chemical properties**

Appearance / odor: Water white colored lube oil with little or no odor **Vapor pressure:** Not available



SAFETY DATA SHEET

CONFORMS TO OSHA HAZARD COMMUNICATION STANDARD
(HCS) 29 CFR 1910.1200

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Revision Date 6/1/2015
Supersedes Date 1/8/2014

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** Formula 5220FG
Part number: 575069; 575070
- 1.2 Identified uses:** Lubricant where there may be incidental food contact
Uses advised against: Not intended for direct food contact. Other uses advised against may be specified elsewhere in this SDS.
- 1.3 Supplier:** JBT FoodTech
1622 First Street
Sandusky, OH 44870 USA
Email contact: NAParts@NET.JBTC.com
Non-emergency contact: Phone: 800-408-7788 (Toll-Free) Fax: 507-645-9664
- 1.4 Emergency telephone:** 3E Company: North America 800-451-8346
International +1 760-602-8703

SECTION 2. HAZARDS IDENTIFICATION

- 2.1 GHS Classification:**
Hazard class(es): This product is not classified as hazardous according to the Globally Harmonized System (GHS).
- 2.2 Label elements**
Pictograms: Not applicable
- Signal word:** Not applicable
- Hazard-determining components of labeling:** Not applicable
- Hazard statements:** Not applicable
- Precautionary statements:** Not applicable
- Additional information:** Not applicable
- 2.3 Other hazards**
Results of PBT and vPvB assessment
PBT: Not applicable
vPvB: Not applicable

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

- | 3.1 Composition | Components | % | CAS # | Impurities |
|-----------------|---|-------|------------|------------|
| | Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based* | 60-90 | 72623-86-0 | None |
- 3.2 Additional information** *Contains <3% DMSO extract as measured by IP 346.

SECTION 4. FIRST AID MEASURES

- 4.1 First aid measures**
- Eye contact:** Remove contact lenses, if wearing, and flush eyes with water for at least 15 minutes or until irritation subsides. If irritation persists, consult a physician.
- Skin contact:** Remove clothing and shoes, if contaminated. Wash skin with soap and water. Wash or clean contaminated clothing before reuse and discard oil-soaked shoes. If irritation persists, consult a physician.
- Ingestion:** If swallowed, DO NOT induce vomiting. As a precaution, give the person a glass of water to drink and seek medical attention. Never give anything by mouth to an unconscious person. Consult a physician.
- Inhalation:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
- 4.2 Most important symptoms and effects, both acute and delayed.**
No further relevant information available.