



Safety Data Sheet

Product identifier used on the label: FEDERATED 5W20 SYNBLEND 12/1

Product Code: FE52SBPL

Revision Date: 10-31-2023

Replaces: 10-06-2023

1. Identification

Product identifier used on the label: FEDERATED 5W20 SYNBLEND 12/1

Product Code: FE52SBPL

Other means of identification:

Other means of identification:

Synonyms: No data available

Recommended use of the chemical and restrictions on use:

Recommended use: Motor Oil

Restrictions on use: Uses other than those described above

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party: Highline Warren LLC
4500 Malone Road
Memphis, TN 38118

Phone number: +01 (901) 437-8615

E-mail address: sds@highlinewarren.com

Emergency phone number: CHEMTREC: +1 (800) 424-9300 International: +01 (703) 527-3887

2. Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

GHS Classification: Not classified as hazardous under OSHA

Hazards not otherwise classified: No data available

3. Composition/information on ingredients

Chemical Name	Common name and synonyms	CAS #	%
Lubricating oils, petroleum, hydrotreated spent	No data available	64742-58-1	65 - 85
Distillates, petroleum, solvent-dewaxed heavy paraffinic	No data available	64742-65-0	1 - 5
Petroleum distillates, hydrotreated heavy paraffinic	No data available	64742-54-7	1 - 5
Highly refined synthetic base stocks	No data available	64742-54-7	1 - 5
Distillates, petroleum,	No data available	64742-55-8	1 - 5

Safety Data Sheet

Product identifier used on the label: FEDERATED 5W20 SYNBLEND 12/1

Product Code: FE52SBPL

Revision Date: 10-31-2023

Replaces: 10-06-2023

Chemical Name	Common name and synonyms	CAS #	%
hydrotreated light paraffinic			
Distillates, petroleum, solvent-dewaxed light paraffinic	No data available	64742-56-9	1 - 5
Benzenamine, ar-nonyl-N-(nonylphenyl)-	No data available	36878-20-3	0.5 - 1.5
Zinc O,O',O',O'-tetrakis(1,3-dimethylbutyl)bis(phosphorodithioate)	No data available	2215-35-2	0.5 - 1
Petroleum distillates, solvent-refined heavy paraffinic	No data available	64741-88-4	0.1 - 0.5

4. First-aid measures

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Inhalation:	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen.
Eye Contact:	None expected to be needed, however, use an eye wash to remove a chemical from your eye regardless of the level of hazard.
Skin Contact:	Wash with soap and water. Get medical attention if irritation develops or persists.
Ingestion:	Minimal risk of harm if swallowed. Do not induce vomiting. Seek medical attention immediately. Provide medical care provider with this SDS.

Most important symptoms/effects, acute and delayed: May cause mild skin irritation.

Indication of immediate medical attention and special treatment needed, if necessary: No additional first aid information available.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media:	Use alcohol resistant foam, carbon dioxide, or dry chemical when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the
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Safety Data Sheet

Product identifier used on the label: FEDERATED 5W/20 SYNBLEND 12/1

Product Code: FE52SBPL

Revision Date: 10-31-2023

Replaces: 10-06-2023

Unsuitable extinguishing media:	fire. Do not direct a stream of water into the hot burning liquid. No data available
Specific hazards arising from the chemical:	Material may be ignited only if preheated to temperatures above the high flash point, for example in a fire.
Hazardous combustion products:	Carbon monoxide, Sulfur containing gases, Nitrogen containing gases, oxides of phosphorus, Hydrogen sulfide
Special protective equipment and precautions for fire-fighters:	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Use methods for the surrounding fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	No health affects expected from the clean up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this SDS.
Methods and materials for containment and cleaning up:	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

7. Handling and storage

Precautions for safe handling:	Mildly irritating material. Avoid unnecessary exposure. Follow all protective equipment recommendations provided in Section 8.
Conditions for safe storage, including any incompatibilities:	
Safe storage conditions:	Store in a cool dry place. Isolate from incompatible materials.
Materials to Avoid/Chemical Incompatibility:	Strong oxidizing agents

8. Exposure controls/personal protection

Safety Data Sheet

Product identifier used on the label: FEDERATED 5W/20 SYNBLEND 12/1

Product Code: FE52SBPL

Revision Date: 10-31-2023

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OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available:

Chemical component	OSHA PEL	ACGIH TLV	ACGIH STEL	IDLH	US WEEL
Lubricating oils, petroleum, hydrotreated spent	5 mg/m ³ TWA	5 mg/m ³ TWA	10 mg/m ³ STEL	No data available	No data available
Distillates, petroleum, solvent-dewaxed heavy paraffinic	5 mg/m ³ TWA	5 mg/m ³ TWA	10 mg/m ³ STEL	No data available	No data available
Petroleum distillates, hydrotreated heavy paraffinic	5 mg/m ³ TWA	5 mg/m ³ TWA	10 mg/m ³ STEL	No data available	No data available
Highly refined synthetic base stocks	5 mg/m ³ TWA	5 mg/m ³ TWA	10 mg/m ³ STEL	No data available	No data available

Appropriate engineering controls: Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort.

Individual protection measures, such as personal protective equipment:

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.

Respirator Type(s): None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

Eye protection: Wear safety glasses when handling this product if there is a likelihood of contact with eyes.

Skin protection: Where use can result in skin contact, practice good personal hygiene and wear impervious gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Wear appropriate protective gloves to prevent skin exposure.

General hygiene conditions: Follow all protective equipment recommendations provided in Section 8.

9. Physical and chemical properties

Appearance (physical state, color etc.):

Physical state: Liquid

Color: Brown

Safety Data Sheet

Product identifier used on the label: FEDERATED 5W/20 SYNBLEND 12/1

Product Code: FE52SBPL

Revision Date: 10-31-2023

Replaces: 10-06-2023

Odor:	Mild Petroleum
Odor Threshold:	Not determined
pH:	No data available
Melting point/freezing point:	
Melting Point:	No data available
Freezing point:	No data available
Initial boiling point and boiling range (°C):	No data available
Flash Point (°C):	220
Evaporation Rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	
Upper flammability or explosive limits:	Not established
Lower flammability or explosive limits:	Not established
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	0.85
Solubility(ies):	Insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition Temperature:	Not determined
Viscosity:	48.12

10. Stability and reactivity

Reactivity:	There are no known reactivity hazards associated with this product.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	None expected under standard conditions of storage.
Conditions to avoid (e.g., static discharge, shock, or vibration):	Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition. Moisture (will lead to product performance degradation).

Safety Data Sheet

Product identifier used on the label: FEDERATED 5W20 SYNBLEND 12/1

Product Code: FE52SBPL

Revision Date: 10-31-2023

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Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Carbon monoxide, Sulfur containing gases, Nitrogen containing gases, oxides of phosphorus, Hydrogen sulfide

11. Toxicological information

Description of the various toxicological (health) effects and the available data used to identify those effects:

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): None known.
Symptoms related to the physical, chemical and toxicological characteristics: May cause mild skin irritation.

Delayed and immediate effects and also chronic effects from short- and long-term exposure:

Ingestion: May be harmful if swallowed. Estimated to be 2.0 - 5.0 g/kg.
Skin Contact: This material is likely to be slightly irritating to skin based on animal data. Can cause minor skin irritation, defatting, and dermatitis.
Inhalation: No hazard in normal industrial use. Likely to be practically non-toxic based on animal data.
Eye Contact: This material is likely to be non-irritating to eyes based on animal data. No hazard in normal industrial use.
Sensitization: Non-hazardous under Respiratory Sensitization category. No data available to indicate product or components may be a skin sensitizer.
Mutagenicity: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
Carcinogenicity: Not expected to cause cancer. This product meets the IP-346 criteria of <3% PAH's and is not considered a carcinogen by the International Agency for Research on Cancer.
Reproductive toxicity Not known or reported to cause reproductive or developmental toxicity.
STOT-single exposure: Based on available data, the classification criteria are not met.
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.
Other information: None known.

Safety Data Sheet

Product identifier used on the label: FEDERATED 5W20 SYNBLEND 12/1

Product Code: FE52SBPL

Revision Date: 10-31-2023

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Numerical measures of toxicity (such as acute toxicity estimates) Based on available data, the classification criteria are not met.

Is the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA:

Chemical Name	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen
There are no components that are known or reported to cause cancer.			

12. Ecological information

Ecotoxicity (aquatic and terrestrial, where available):

Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.

Ecological Toxicity Data:

Chemical Name	CAS #	Aquatic EC50 Crustacea	Aquatic ERC50 Algae	Aquatic LC50 Fish
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	EC50 (48h) Daphnia magna > 1000 mg/L	No data available	LC50 (96h) Rainbow Trout > 5000 mg/L
Zinc O,O',O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	2215-35-2	EC50 (48h) Daphnia magna 4 - 6 mg/L	Aquatic ERC50 (96h) 1 - 5 mg/L	LC50 (96h) > 100 mg/L
Benzenamine, ar-nonyl-N-(nonylphenyl)-	36878-20-3	EC50 (48h) Daphnia magna > 100 mg/L	EC50 (72h) Green Algae > 100 mg/L	LC50 (96h) Pimephales promelas (Fathead Minnow) > 1000 mg/L
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9	EC50 (48h) Daphnia magna > 1000 mg/L	No data available	LC50 (96h) Rainbow Trout > 5000 mg/L
Distillates, petroleum, hydrotreated light paraffinic	64742-55-8	EC50 (48h) Daphnia magna > 1000 mg/L	No data available	LC50 (96h) Rainbow Trout > 5000 mg/L
Highly refined synthetic base stocks	64742-54-7	EC50 (48h) Daphnia magna > 1000 mg/L	No data available	LC50 (96h) Rainbow Trout > 5000 mg/L
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	EC50 (48h) Daphnia magna > 1000 mg/L	No data available	LC50 (96h) Rainbow Trout > 5000 mg/L

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Product Code: FE52SBPL

Revision Date: 10-31-2023

Replaces: 10-06-2023

Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0	EC50 (48h) Daphnia magna > 1000 mg/L	No data available	LC50 (96h) Rainbow Trout > 5000 mg/L
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Persistence and degradability:	Biodegrades slowly.
Bioaccumulative potential:	Bioconcentration may occur.
Mobility in soil:	This material is expected to have essentially no mobility in soil. It absorbs strongly to most soil types.
Other adverse effects (such as hazardous to the ozone layer):	None known.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Spent or discarded material is non-hazardous according to environmental regulations.
Contaminated packaging:	Recycle containers whenever possible.

14. Transport information

Carriage of dangerous goods by road (DOT), rail or inland waterways:

DOT Basic Description: Not regulated by the US D.O.T.

International carriage of dangerous goods by sea (IMDG/IMO):

UN number: Not regulated by IMDG

UN Proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group, if applicable: Not applicable

International carriage of dangerous goods by air (IATA):

UN number: Not regulated by IATA

UN Proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group, if applicable: Not applicable

Safety Data Sheet

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Environmental hazards (e.g., Marine pollutant (Yes/No)): None.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): No data available

Special precautions which a user needs to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises: No data available

15. Regulatory information

Safety, health and environmental regulations specific for the product in question:

TSCA Status: All components of this material are on the Active US TSCA Inventory or are exempt.

Regulated Components:

Chemical Name	CAS #	CERCLA	Sara EHS	Sara 313	U.S. HAP
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	N	N	N	N
Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0	N	N	N	N
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	N	N	N	N
Highly refined synthetic base stocks	64742-54-7	N	N	N	N
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9	N	N	N	N
Distillates, petroleum, hydrotreated light paraffinic	64742-55-8	N	N	N	N
Benzenamine, ar-	36878-20-3	N	N	N	N

Safety Data Sheet

Product identifier used on the label: FEDERATED 5W/20 SYNBLEND 12/1

Product Code: FE52SBPL

Revision Date: 10-31-2023

Replaces: 10-06-2023

nonyl-N-(nonylphenyl)-Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl)bis(phosphorodithioate)	2215-35-2	N	N	N	N
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	N	N	N	N

Chemical Name	CAS #	California Prop 65 - Cancer	California Prop 65 - Dev. Toxicity	California Prop 65 - Reprod fem	California Prop 65 - Reprod male
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	N	N	N	N
Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0	N	N	N	N
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	N	N	N	N
Highly refined synthetic base stocks	64742-54-7	N	N	N	N
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9	N	N	N	N
Distillates, petroleum, hydrotreated light paraffinic	64742-55-8	N	N	N	N
Benzenamine, ar-nonyl-N-(nonylphenyl)-Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl)bis(phosphorodithioate)	36878-20-3	N	N	N	N
Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl)bis(phosphorodithioate)	2215-35-2	N	N	N	N

Safety Data Sheet

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Revision Date: 10-31-2023

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Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	N	N	N	N
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California Prop 65

WARNING: This product can expose you to chemicals including Benzene which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Chemical Name	CAS #	Massachusetts RTK List	New Jersey RTK List	Pennsylvania RTK List	Rhode Island RTK List	Minnesota Hazardous Substance List
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	N	N	N	N	N
Distillates, petroleum, solvent- dewaxed heavy paraffinic	64742-65-0	N	N	N	N	N
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	N	N	N	N	N
Highly refined synthetic base stocks	64742-54-7	N	N	N	N	N
Distillates, petroleum, solvent- dewaxed light paraffinic	64742-56-9	Y	N	N	N	N
Distillates, petroleum, hydrotreated light paraffinic	64742-55-8	Y	N	N	N	N
Benzenamine, ar- nonyl-N- (nonylphenyl)-	36878-20-3	N	N	N	N	N
Zinc O,O',O'- tetrakis(1,3- dimethylbutyl) bis(phosphorodithio ate)	2215-35-2	N	N	N	N	N
Petroleum distillates, solvent-refined	64741-88-4	N	N	N	N	N

Safety Data Sheet

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Product Code: FE52SBPL

Revision Date: 10-31-2023

Replaces: 10-06-2023

heavy paraffinic						
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16. Other information, including date of preparation or last revision.

SDS Prepared by: EHUGHES

Revision Date: 10-31-2023

Revision Number: 9

Reason for revision: Activated by Document Formulation Generation

References: No data available

Other Info: No data available

Disclaimer: This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.