



BorgWarner Fluid Gen II-V

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 11-12-2015 Revision date: 11-12-2015 version: 1.2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : BorgWarner Fluid Gen II-V

Product code : 50000BWHS

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

MPM International Oil Company
Cyclotronweg 1
2629 HN Delft - Nederland
T +31 (0)15 2514030 - F +31 (0)15 2514031
info@mpmoil.nl - www.mpmoil.nl

1.4. Emergency telephone number

Emergency number : +31 (0)15 2514030 (08.00 - 17.00)

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Centre Hospitalier Universitaire de Constantine	Avonley Road SE14 5ER London	0870 243 2241	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, H319
Category 2

Hazardous to the aquatic environment H412
— Chronic Hazard, Category 3

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

CLP Signal word :

Warning

Hazard statements (CLP) :

H319 - Causes serious eye irritation
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP) :

P264 - Wash hands thoroughly after handling
P273 - Avoid release to the environment
P280 - Wear eye protection, protective gloves
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention
P501 - Dispose of contents/container to officially registered waste disposal company

EUH-statements :

EUH208 - Contains C14-18 alpha-olefin epoxide, reaction products with boric acid. May

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produce an allergic reaction

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	(CAS No) 4259-15-8 (EC No) 224-235-5 (REACH-no) 01-2119493635-27	1 - 5	Eye Dam. 1, H318 Aquatic Chronic 2, H411
C14-18 alpha-olefin epoxide, reaction products with boric acid		< 0,1	Skin Sens. 1, H317

Specific concentration limits:

Name	Product identifier	Specific concentration limits
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	(CAS No) 4259-15-8 (EC No) 224-235-5 (REACH-no) 01-2119493635-27	(1 =<C < 50) Eye Irrit. 2, H319 (50 =<C < 100) Eye Dam. 1, H318

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General	: Get medical advice/attention if you feel unwell.
After inhalation	: Take victim to fresh air, in a quiet place and if necessary take medical advice.
After skin contact	: Take off contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
After eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
After ingestion	: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: powder, alcohol-resistant foam, water spray, carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.
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5.3. Advice for firefighters

Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: May be dangerously slippery if spilled.
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6.1.1. For non-emergency personnel

Protective equipment	: Do not get in eyes, on skin, or on clothing.
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6.1.2. For emergency responders

Protective equipment	: Use personal protective equipment as required.
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6.2. Environmental precautions

Notify authorities if product enters sewers or public waters. Avoid release to the environment.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.
Other information : Dispose of materials or solid residues at an authorized site. Can be slippery on hard, smooth walking area.

6.4. Reference to other sections

Information on personal protective equipment - see Chapter 8. Information on safe handling - see Section 7.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : The substance must be handled in accordance with good industrial hygiene and safety procedures. Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin, eyes and clothing.
Hygiene measures : Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry place. Store in a closed container. Protect from moisture.

7.3. Specific end use(s)

Lubricant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information : Based on ACGIH TLV, a concentration of 5 mg/m³ oilspray (TWA, 8 hour workday) is recommended.

8.2. Exposure controls

Technical measures:

The substance must be handled in accordance with good industrial hygiene and safety procedures.

Hand protection:

Wear suitable gloves resistant to chemical penetration

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR), Polyvinylchloride (PVC)	5 (> 240 minutes)			

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. In case of inadequate ventilation wear respiratory protection

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : brown.
Odour : Oily.
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : 200 °C ISO 2592

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Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 886 g/l
Solubility	: Insoluble in water.
Log Pow	: > 3
Viscosity, kinematic	: 50 mm ² /s ISO 3104
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Sparks. Heat. Open flame.

10.5. Incompatible materials

Strong oxidizing agent.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. On burning: release of harmful/irritant gases/vapours e.g.: carbon monoxide - carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Additional information	: Repeated exposure may cause skin dryness or cracking
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Additional information	: At high concentrations, the vapours can be irritating to the respiratory system

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Viscosity, kinematic	50 mm ² /s ISO 3104
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Other information : When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

SECTION 12: Ecological information

12.1. Toxicity

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zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
LC50 fish 1	4,4 mg/l
LC50 fish 2	46 mg/l
EC50 Daphnia 1	75 mg/l (freshwater, Daphnia magna, 48h)
EC50 Daphnia 2	> 0,8 mg/l (freshwater, Daphnia magna, 21d)
EC50 72h algae (1)	240 mg/l (freshwater, Desmodesmus subspicatus,)
NOEC (chronic)	0,4 mg/l (freshwater, Daphnia magna, 21d)

12.2. Persistence and degradability

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
Persistence and degradability	Under test conditions no biodegradation observed.

12.3. Bioaccumulative potential

BorgWarner Fluid Gen II-V	
Log Pow	> 3
Bioaccumulative potential	Expected to bio accumulate.

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
Bioaccumulative potential	This substance is expected to have low bioaccumulation potential. This substance does not meet the criteria of concern for bioaccumulation.

12.4. Mobility in soil

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
Soil	No data available.

12.5. Results of PBT and vPvB assessment

Component	
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose as hazardous waste. Avoid release to the environment.
European List of Waste (LoW) code	: 13 01 11* - synthetic hydraulic oils

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG
14.1. UN number	
Not applicable	Not applicable
14.2. UN proper shipping name	
Not applicable	Not applicable
14.3. Transport hazard class(es)	
Not applicable	Not applicable
Not applicable	Not applicable
14.4. Packing group	
Not applicable	Not applicable
14.5. Environmental hazards	
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No
No supplementary information available	

14.6. Special precautions for user

- Overland transport

No data available

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- Transport by sea

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains . May produce an allergic reaction.

SDS MPM REACH

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product