

SAFETY DATA SHEET

Levasil FO9950

Version 1

Revision Date 04/28/2015

Print Date 03/21/2016

US / Z8

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Levasil FO9950

Product Use Description : Inorganic binder, surface modifier and flocculating agent.

Chemical characterization : Amorphous Silica, aqueous colloidal solution.

Company : Akzo Nobel Pulp and Performance
Chemicals Inc.
1850 Parkway Place Suite 1200
Marietta GA 30067
United States

Telephone : +17705780858

Fax : +17705781359

E-mail address : psra.ppc@akzonobel.com

Emergency telephone : US CHEMTREC +1-800-424-9300 Internat'l +1-703-741-5971
(collect calls accepted) CANADA CANUTEC +1-613-996-6666

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Clear liquid
Color	clear, cloudy
Odor	slight

GHS Classification

Not a hazardous substance or mixture.

GHS Label element

Not a hazardous substance or mixture.

Potential Health Effects

Inhalation : May cause respiratory tract irritation.

Skin : Causes mild skin irritation.

Eyes : May cause eye irritation.

Ingestion : May cause irritation of the mucous membranes.

Aggravated Medical Condition : None known.

Symptoms of Overexposure : No information available.

Levasil FO9950

Version 1

Revision Date 04/28/2015

Print Date 03/21/2016

US / Z8

Carcinogenicity:

- IARC** : No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- OSHA** : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
- NTP** : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- ACGIH** : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Chemical Name	CAS-No.	Classification	Concentration [%]
silicon dioxide	7631-86-9		50 - 70

4. FIRST AID MEASURES

- General advice : No hazards which require special first aid measures.
- Inhalation : If breathed in, move person into fresh air.
If symptoms persist, call a physician.
- Skin contact : Remove contaminated clothing and shoes.
Rinse with water.
- Eye contact : Rinse with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
- Ingestion : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.

Notes to physician

- Symptoms : No information available.
- Risks : No information available.
- Treatment : Treat symptomatically.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific hazards during fire fighting / Specific hazards arising from the chemical : No hazards to be specially mentioned.
- Combustion products : No hazardous combustion products are known
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Standard procedure for chemical fires.

See also Section 9. Physical and chemical properties: Safety data

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : No conditions to be specially mentioned.

Levasil FO9950

Version 1

Revision Date 04/28/2015

Print Date 03/21/2016

US / Z8

- Environmental precautions : No special environmental precautions required.
- Methods for cleaning up /
Methods for containment : Wipe up with absorbent material (e.g. cloth, fleece).
Keep in suitable, closed containers for disposal.
If liquid has been spilt in large quantities clean up promptly by
scoop or vacuum.
- Additional advice : For personal protection see section 8.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : For personal protection see section 8.
No special handling advice required.
- Advice on protection against
fire and explosion : Normal measures for preventive fire protection.

Storage

- Requirements for storage
areas and containers : Keep container tightly closed in a dry and well-ventilated
place.
Store in closed dark containers made of anti-corrosive
material.
- Advice on common storage : No special restrictions on storage with other products.
- Minimum storage
temperature: : Avoid temperatures below:
5 °C (41 °F)
- Maximum storage
temperature: : 35 °C (95 °F)
- Other data : No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure
silicon dioxide	7631-86-9	TWA	20 Million particles per cubic foot	2012-07-01	OSHA Z-3	Dust
	Further information	:	a: Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques. mppcf X 35.3 = million particles per cubic meter = particles per c.c Silica			
		TWA	80 mg/m3 / %SiO2	2012-07-01	OSHA Z-3	Dust
	Further information	:	Silica			
		TWA	6 mg/m3	2013-10-08	NIOSH REL	
	Further information	:	Silica			

Levasil FO9950

Version 1

Revision Date 04/28/2015

Print Date 03/21/2016

US / Z8

STEL: Short term exposure limit
TWA: Time Weighted Average

Engineering measures

Effective exhaust ventilation system

Personal protective equipment

Eye/face protection : Safety glasses

Hand protection : Glove material: PVC
: Glove material: Rubber gloves

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : General industrial hygiene practice.

Environmental exposure controls

General advice : No special environmental precautions required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : Clear liquid

Color : clear
cloudy

Odor : slight

Odor Threshold : No data available

Safety data

pH : 8 - 10

Melting point/range : 0 °C

Boiling point/boiling range : 100 °C

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : The product is not flammable.

Lower explosion limit : Not applicable

Upper explosion limit : Not applicable

Vapor pressure : ca. 23 hPa at 20 °C

Relative vapor density : No data available

Levasil FO9950

Version 1

Revision Date 04/28/2015

Print Date 03/21/2016

US / Z8

Relative density	: 1.050 - 1.400
Water solubility	: dispersible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: Not applicable
Autoignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, dynamic	: < 50 mPa.s
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: Not classified as oxidizing.

This material safety datasheet only contains information relating to safety and does not replace any product information or product specification.

10. STABILITY AND REACTIVITY

Conditions to avoid	: Avoid allowing solution to dry as this can lead to a build-up of dust. For safety, store below: 35 °C (95 °F)
Materials to avoid	: Mild steel Aluminum Copper
Hazardous decomposition products	: No hazardous decomposition products are known.
Thermal decomposition	: No data available
Reactivity	: Stable under normal conditions.
Chemical stability	: Stable under recommended storage conditions.
Hazardous reactions	: No dangerous reaction known under conditions of normal use.

11. TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION:

Toxicology Assessment

Further information : Information given is based on data on the ingredients and the toxicology of similar products.

Levasil FO9950

Version 1

Revision Date 04/28/2015

Print Date 03/21/2016

US / Z8

Test result

- Acute oral toxicity : LD50: > 5,000 mg/kg
Species: Rat
The value is estimated from tests on similar products.
- Sensitization : Result: Did not cause sensitization on laboratory animals.
Method: (Magnusson-Kligman):
The value is estimated from tests on similar products.
- Germ cell mutagenicity
Genotoxicity in vitro : Ames test
Result: negative
Method: OECD Test Guideline 471
The value is estimated from tests on similar products.

Carcinogenicity:

- IARC** : No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- OSHA** : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
- NTP** : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- ACGIH** : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

TOXICOLOGY DATA FOR THE INGREDIENTS:

Test result

Component: silicon dioxide

- Acute oral toxicity : LD50: > 10,000 mg/kg
Species: Rat

12. ECOLOGICAL INFORMATION

PRODUCT INFORMATION:

Ecotoxicology Assessment

- Additional ecological information : None known.

Test result

Ecotoxicity effects

- Toxicity to fish : LC50: > 5,000 mg/l
Exposure time: 96 h
Species: Danio rerio (zebra fish)
The value is estimated from tests on similar products.
- Toxicity to daphnia and other : EC50: 7,600 mg/l

Levasil FO9950

Version 1

Revision Date 04/28/2015

Print Date 03/21/2016

US / Z8

aquatic invertebrates : Exposure time: 48 h
Species: Ceriodaphnia dubia (water flea)
The value is estimated from tests on similar products.

Toxicity to algae : NOEC: 60 mg/l
Exposure time: 48 h
Species: Selenastrum capricornutum (green algae)
The value is estimated from tests on similar products.

EC50: 120 mg/l
Exposure time: 48 h
Species: Selenastrum capricornutum (green algae)
The value is estimated from tests on similar products.

EC10: 140 mg/l
Exposure time: 48 h
Species: Selenastrum capricornutum (green algae)
The value is estimated from tests on similar products.

Elimination information (persistence and degradability)

Bioaccumulation : Bioaccumulation is not expected.

Mobility : No test results
Under extreme circumstances, transport from earth to water may take place.

Distribution among environmental compartments : Transport to air is not expected.

Biodegradability : Result: Not applicable
inorganic

Further information on ecology

Biochemical Oxygen Demand (BOD) : No data available

Hazardous to the ozone layer

Regulation : 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

INGREDIENTS:

13. DISPOSAL CONSIDERATIONS

Contaminated packaging : Empty remaining contents.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

International Regulation

ADR

Not regulated as a dangerous good

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Further information for transport

Not classified as dangerous in the meaning of transport regulations.

Domestic regulation

49 CFR

Not regulated as a dangerous good

TDG

Not regulated as a dangerous good

NOM-002-SCT

Not regulated as a dangerous good

15. REGULATORY INFORMATION

Notification status

CH INV : YES. On the inventory, or in compliance with the inventory
TSCA : YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.
DSL : YES. All components of this product are on the Canadian DSL.
AICS : YES. On the inventory, or in compliance with the inventory
NZIoC : YES. On the inventory, or in compliance with the inventory
ENCS : YES. On the inventory, or in compliance with the inventory
ISHL : YES. On the inventory, or in compliance with the inventory
KECI : YES. On the inventory, or in compliance with the inventory
PICCS : YES. On the inventory, or in compliance with the inventory
IECSC : YES. On the inventory, or in compliance with the inventory

For explanation of abbreviations, see section 16.

TSCA list : Not relevant
OSHA Hazards : No OSHA Hazards

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

Levasil FO9950

Version 1

Revision Date 04/28/2015

Print Date 03/21/2016

US / Z8

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals subject to disclosure and listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

California Prop. 65

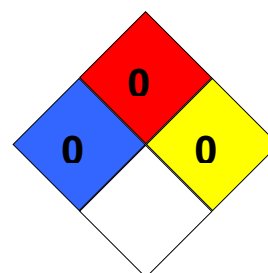
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Further information

HMIS Classification : Health Hazard: 0
Flammability: 0
Physical hazards: 0

NFPA Classification : Health Hazard: 0
Fire Hazard: 0
Reactivity Hazard: 0



Notification status explanation

REACH	1907/2006 (EU)
CH INV	Switzerland. New notified substances and declared preparations
TSCA	United States TSCA Inventory
DSL	Canadian Domestic Substances List (DSL)
AICS	Australia Inventory of Chemical Substances (AICS)
NZIoC	New Zealand. Inventory of Chemical Substances
ENCS	Japan. ENCS - Existing and New Chemical Substances Inventory

Levasil FO9950

Version 1

Revision Date 04/28/2015

Print Date 03/21/2016

US / Z8

ISHL	Japan. ISHL - Inventory of Chemical Substances
KECI	Korea. Korean Existing Chemicals Inventory (KECI)
PICCS	Philippines Inventory of Chemicals and Chemical Substances (PICCS)
IECSC	China. Inventory of Existing Chemical Substances in China (IECSC)

Further information

Revision Date 04/28/2015

AkzoNobel are trademarks of the AkzoNobel N.V. For more information on our brands and products please visit: www.akzonobel.com/brands_products Eka®, Purate®, Compozil®, Expancel®, Kromasil®, Bindzil®, Levasil®, Bevasil® are trademarks of AkzoNobel.

The information in this material safety data sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. The user must determine the appropriate measures that need to be implemented for the use and handling of this product in the context of the user's operations and use of this product. The information contained herein supersedes all previously issued bulletins on the subject matter covered. If the date on this document is more than three years old, call to make certain that this sheet is current. No warranty is made as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. User must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products. Nothing contained herein shall be construed as granting or extending any license under any patent.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.