

# SAFETY DATA SHEET

according to the Globally Harmonized System and US regulation

## Levasil FO2040

Version 1

Revision Date 03/07/2016

Print Date 03/21/2016

US / Z8

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Levasil FO2040

Product Use Description : Specific use(s): Inorganic binder, surface modifier and flocculating agent.

Chemical characterization : Amorphous Silica, aqueous colloidal solution.

Company : Akzo Nobel Pulp and Performance  
Chemicals Inc.  
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### 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.

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## **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.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous ingredients

| Chemical Name   | CAS-No.   | Classification | Concentration [%] |
|-----------------|-----------|----------------|-------------------|
| silicon dioxide | 7631-86-9 |                | 30 - 50           |

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### 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.

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### 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.
- 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.<br>mppcf X 35.3 = million particles per cubic meter = particles per c.c<br>Silica |            |          |                  |
|                 |                     | TWA   | 80 mg/m3 / %SiO2   | 2012-07-01 | OSHA Z-3 | Dust             |
|                 | Further             | :     |  |            |          |                  |

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|  |                     |     |         |            |           |  |
|--|---------------------|-----|---------|------------|-----------|--|
|  | information         |     | Silica  |            |           |  |
|  |                     | TWA | 6 mg/m3 | 2013-10-08 | NIOSH REL |  |
|  | Further information | :   | Silica  |            |           |  |

ACGIH: American Conference of Governmental Industrial Hygienists

BEI: Biological Exposure Index

MAC: Maximum Allowable Concentration

NIOSH: National Institute for Occupational Safety and Health

OEL: OEL: Occupational exposure limit.

STEL: Short term exposure limit

TWA: Time Weighted Average

## Hazardous substance

| Substance name  | CAS-No.             | Value   | Control parameters  | Basis   | Update     |
|-----------------|---------------------|---|---|---------|------------|
| silicon dioxide | 7631-86-9           | Immediately Dangerous to Life or Health Concentration Value | 3000 mg/m3  | US IDLH | 1995-03-01 |
|                 | Further information | :   | Immediately Dangerous to Life or Health Concentrations (IDLH) |         |            |

## 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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form : Clear liquid

Color : clear  
cloudy

Odor : slight

Odor Threshold : No data available

### Safety data

pH : 9 - 11

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|  |                                 |
|--|---------------------------------|
| Melting point/range                    | : 0 °C                          |
| Boiling point/boiling range            | : 100 °C                        |
| Flash point                            | : Not applicable                |
| Evaporation rate                       | : No data available             |
| Flammability (solid, gas)              | : Not applicable                |
| Flammability (liquids)                 | : 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             |
| Relative density                       | : 1.05 - 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.

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## 10. STABILITY AND REACTIVITY

|                                  |  |
|----------------------------------|--|
| Conditions to avoid              | : Avoid allowing solution to dry as this can lead to a build-up of dust. |
| Materials to avoid               | : Copper<br>Mild steel<br>Aluminum                                       |
| Hazardous decomposition products | : No hazardous decomposition products are known.                         |

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|                       |   |
|-----------------------|---|
| 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. |

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## 11. TOXICOLOGICAL INFORMATION

### PRODUCT INFORMATION:

#### Toxicology Assessment

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

#### 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.

#### TOXICOLOGY DATA FOR THE INGREDIENTS:

#### Test result

##### Component: silicon dioxide

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

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## 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 aquatic invertebrates : EC50: 7,600 mg/l  
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



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## 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:

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### 13. DISPOSAL CONSIDERATIONS

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

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### 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

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### 15. REGULATORY INFORMATION

#### Notification status

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

TSCA 5(a)(2) : No substances are subject to a Significant New Use Rule.  
TSCA 12(b) : No substances are subject to TSCA 12(b) export notification requirements.

## 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

**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 I 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

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## 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.

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## 16. OTHER INFORMATION

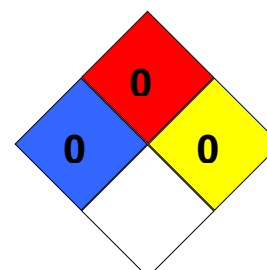
### Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TDG - Transportation of Dangerous Goods; UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

**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)   |
| 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 |
| 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

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