

# SAFETY DATA SHEET

## MATERIAL SAFETY DATA SHEET

Last changed: 22/12/2009

Internal No:

Replaces date: 20/04/2006

EuroVanillin Plus /Euro Vanillin Plus F

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

**TRADE NAME** EuroVanillin Plus /Euro Vanillin Plus F

**GROUP NAME** SAP nr. 105301 / 106173

#### National manufacturer/importer

Enterprise Borregaard Industries Limited

Address P.O. Box 162

Postal code 1701 Sarpsborg

Country Norway

Telephone + 47 69 11 80 00

Fax + 47 69 11 87 70

Name	E-mail	Tel. (work)	Country
Nina Faye Haraldstad	MSDS@borregaard.com		

Emergency Phone	Type of assistance	Opening Hours
+47 22 59 13 00	National dept.for poisons information (Norway)	24 h
+47 69 11 88 88	Borregaard emergency no.	24 h

### 2. HAZARDS IDENTIFICATION

#### GENERAL

Not classified. Note the risk of dust explosion.

#### HEALTH

Protracted or repeated exposure may irritate the eyes, skin and respiratory system. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization in susceptible persons.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

No	Ingredient name	Reg.No	EC No.	CAS No.	Conc. (wt%)	Classification
1	Vanillin		204-465-2	121-33-5	> 50 %	No classification required
2	Maltodextrin		232-940-4	9050-36-6	< 50 %	No classification required

Explanation of symbols: T+=highly toxic, T=toxic, C=corrosive, Xn=harmful, Xi=irritant E=Explosive, O=Oxidising, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment, Cancer=Carcinogenic, Mut=Mutagenic, Rep=Toxic for reproduction, Conc.=Concentration

### 4. FIRST AID MEASURES

#### GENERAL

Remove contaminated clothes and wash them before reusing.

#### INHALATION

Fresh air and rest. Contact physician if symptoms appears.

#### SKIN CONTACT

Remove contaminated clothing. Wash skin with soap and water. Contact physician if irritation persists.

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### EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact physician if irritation persists.

### INGESTION

Thoroughly rinse the mouth with water. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.

### MEDICAL INFORMATION

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

Small fires can be extinguished with dry sand, powder or carbon dioxide. Use water spray, water mist or foam to extinguish major fires.

### FIRE AND EXPLOSION HAZARDS

Not flammable, but combustible. Dust may form explosive mixture with air. Formation of toxic gases if heated.

### PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

General: Evacuate all personnel, use protective equipment for fire fighting. Use a portable breathing apparatus when the product is involved in a fire.

### OTHER INFORMATION

The product is combustible. May cause fire or explosion when heated or on contact with a combustible material. High concentrations of dust may form explosive mixture with air. Moderate to high danger of explosion. Min. explosion cons. 0,01 g/m<sup>3</sup>

## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Provide good ventilation. Avoid generation and spreading of dust. Avoid inhalation. Note the risk of dust explosion.

### SAFETY ACTIONS TO PROTECT EXTERNAL ENVIRONMENT

Prevent discharge into the sewage system or the immediate environment.

### METHODS FOR CLEANING UP

Collect with vacuum cleaner or carefully sweep together and collect. Avoid generation and spreading of dust. Collect the spillage into suitable containers for incineration. Do not allow runoff to sewer, waterway or ground. Flush with plenty of water to clean spillage area.

## 7. HANDLING AND STORAGE

### HANDLING PRECAUTIONS

Use spark-proof tools and explosion-proof electric equipment. Explosion-proof general and local exhaust ventilation. Ground container and transfer equipment to eliminate static electric sparks. Wear necessary protective equipment. Observe the danger of dust explosion .

### HANDLING ADVICE

Provide sufficient ventilation for operations causing dust formation. Avoid spilling, skin and eye contact. Wear appropriate clothing to prevent repeated or prolonged skin contact.

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### STORAGE

Keep in cool, dry, ventilated storage and closed containers. Ground container and transfer equipment to eliminate static electric sparks. Avoid high temperatures and direct sunlight.

### OTHER INFORMATION

Be aware of danger of explosion. Vigorous stirring and flow through pipings and equipment may cause formation of electrostatic charges. Ground container and transfer equipment to eliminate static electric sparks. Keep electric and thermal ignition sources away from the product.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE CONTROL

Avoid handling which leads to dust formation. Avoid inhalation. Mechanical ventilation or local exhaust ventilation may be required.

Facilities for eye rinsing must be available.

Wash at the end of each work shift and before eating, smoking and using the toilet. Isolate contaminated clothing and wash before reuse.

### RESPIRATORY PROTECTION

If necessary, respirator (full face mask or half mask) with P2 particle filter or breathing apparatus.

### EYE PROTECTION

Use approved safety goggles or face shield.

### HAND PROTECTION

Protective gloves (nitrile rubber, PVC).

### PROTECTIVE CLOTHING

Wear appropriate clothing to prevent repeated or prolonged skin contact.

### OEL value

Ingredient name	Cas nr.	Interval	ppm	mg/m3	Year	Notification
Nuisance dust, total		8 h		10,0	2005	

R=Toxic for reproduction, H=Skin, K=Carcinogenic, A=Sensitising, T=Upper limit, M=Mutagenic

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Crystals or powder.		
<b>Colour</b>	White. Light yellow.		
<b>Odour</b>	Vanilla. Characteristic odour.		
<b>Solubility</b>	Solubility of EuroVanillin Plus, approximate values in g/l		
	Temperature °C	Water	Propylene glycol
	5	5	
	10	6	
	15	8	
	20	10	350
	25	15	400
	30	20	450
	35	30	500
	40	35	540
	50	50	625
	80	80	

#### Physical and chemical parameters

Parameter	Value/unit	Method/reference	Observation
pH in solution	~ 4,5	15 g/l	
Auto-ignition temp.	> 400 °C		
min.ex cons.	0,01 g/m3		

### 10. STABILITY AND REACTIVITY

#### STABILITY

Stable under recommended storage and handling conditions. Avoid heat, light & moisture. May discolour if heated or exposed to light or humidity

#### MATERIALS TO AVOID

Oxidizing substance. Risk of exothermic reaction. Avoid contact with oxidizing substances, strong acids and strong bases. React violent with: Bromine, perchloric acid, strong alkoxides, tert-chlorobenzene, caustic soda, formic acid, thallium nitrate.

#### HAZARDOUS DECOMPOSITION PRODUCTS

Dangerous products of decomposition: carbon monoxide. Karbondioksid (CO2).Phenol.

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxic test results

#### EuroVanillin Plus /Euro Vanillin Plus F

Route of exposure	Exposure time	Value/unit	Species	Source
LD50(Dermal)		> 2000 mg/kg	Rat	
LD50(Oral)		< 5000 mg/kg	Rat	

#### INHALATION

May irritate the respiratory organs.

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### SKIN CONTACT

Not irritating on the basis of reported animal and human tests. Skin contact may aggravate existing skin disease. Vanillin is known to cause reactions in people previously sensitized to Balsam of peru, rosin, orange peel, cinnamon and clove.

### EYE CONTACT

Non-irritant.

### INGESTION

Low acute toxicity.

### SENSITIZATION

Although animal tests indicate that it may be allergen, human tests were negative.

### CARCINOGENICITY

This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be probable or suspected human carcinogens.

### TERATOGENIC EFFECTS

No adverse effects are reported from developmental studies with pregnant mice and in chicken embryos. Although some in-vitro tests suggest that it may be genotoxic, life-time carcinogenicity studies in rats gave negative results.

### OTHER TOXICOLOGICAL INFORMATION

Level for non observed effect (NOEL); 2500mg/kg/day tested on rats (repeated oral doses)

Acceptable daily intake (ADI) for human is intended for 0-10 mg/kg/day (The Joint FAO/WHO Expert Committee on Food Additives. )

## 12. ECOLOGICAL INFORMATION

### AQUATIC ECOTOXICITY

#### EuroVanillin Plus /Euro Vanillin Plus F

Test	Exposure time	Value/unit	Species	Source
Acute algae(LC50)		2 mg/l		
Acute Daphnia(EC50)	48 h	80 mg/l	Daphnia	
Acute fish(LC50)	96 h	< 123 mg/l	P.promelas	

### ECOTOXICITY

NOEC = 2 mg/l (algae)

### DEGRADABILITY

Readily biodegradable. BOD5 / COD: @ 72 %.

### ACCUMULATION

Bioaccumulation improbable. Log Pow = 1.21 - 1.35.

### OTHER INFORMATION

Readily biodegradable. Not bioaccumulating in water environments

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### 13. DISPOSAL CONSIDERATIONS

#### GENERAL REGULATIONS

Where possible, recycling is preferred to disposal or incineration. Refuse can be incinerated in an incinerator equipped with an afterburner and washer. Packaging must be cleaned thoroughly, do not remove labelling or warning labels. Local and EU regulations for refuse treatment must be followed. Non-dangerous waste.

### 14. TRANSPORT INFORMATION

Classified as Dangerous Goods:  Yes  No  Not assessed

#### OTHER INFORMATION

Not classified as dangerous goods. Customs reg. No. :29.12.4100

### 15. REGULATORY INFORMATION

EC-Label  No  Yes  Not assessed

#### COMPOSITION

Vanillin (> 50 % ), Maltodextrin (< 50 % )

#### R-PHRASES

#### S-PHRASES

S22 Do not breathe dust.

#### REFERENCES

Ames test: Huntingdon Research Centre Ltd. Report no. BOD 15A/861683 (31.12.86). Acute oral toxicity: Huntingdon Research Centre Ltd. Report no 861395D/BOD 14/AC. In-house datafiles(1997), Hinton Safety Consultants Ltd., UKRef.: Hawley's Condensed Chemical Dictionary, Sax's Dangerous Properties of Industrial Materials, Sax's Dangerous Properties of Industrial Materials, Verscheuren's handbook of Environmental Data on Organic Chemicals.

#### LEGISLATION

Guiding values for pollution in the working atmosphere (ADN) (Norway-2005).  
Regulation to dangerous waste from ministry of Norway (2005).  
Norwegian adaptation to Annex 1 of directive 67/548/EEC.  
ADR/RID (2007).  
REACH (2008)

#### OTHER INFORMATION

All components are listed in EINECS(Europa), TSCA (USA), DSL (Canada), AICS(Australia) MITI(Japan) og KECL (Sør Korea)

European Council: List 1, Nr. 107 .France: permission to be used in food where artificial aromas can be used..FDA: GRAS Status: CFR 21 - Part. 182.60 page 413 (1995).FEMA: GRAS Status: Nr. FEMA 3107.

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### 16. OTHER INFORMATION

#### VENDOR NOTES

Information in this safety data sheet is based on our present knowledge, and is intended to be a description of the health and safety aspects of the product. It is the responsibility of the recipient of this safety data sheet to ensure that information given here is read and understood by all who use, handle, dispose of or in any way come in contact with the product. The information given in this MSDS is based on our present knowledge and describe security for our products. It is not a sales specification.

**ISSUED:** 20/04/2006

#### REVISION HISTORY

Version	Rev. date	Responsible	Changes
0.0.1	20/04/2006	Borregaard Ind Ltd	Updated according to existing regulations (NIHA)
0.0.2	22/12/2009	Borregaard Ind Ltd	General update - Minor changes (NIHA)