

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**ROVIMIX® C-EC****0482978**

Version 1.4

Revision Date 14.10.2014

Print Date 16.03.2017

1. Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name : ROVIMIX® C-EC

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

Use of the Substance/Mixture : Additive for animal nutrition in premixes and compound feeds

1.3 Details of the supplier of the safety data sheet

Company : DSM Nutritional Products Ltd.
 PO Box 2676
 CH-4002 Basel

Telephone : +41618158888
 Telefax : +41618157253
 E-mail address : sds.nutritionalproducts@dsm.com
 Responsible/issuing person

1.4 Emergency telephone number

+41 62 866 2314

2. Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

2.3 Other hazards

Risk of dust explosion.

3. Composition/information on ingredients

Brief description of the product : Mixture (preparation) containing active ingredient and auxiliary substance

3.2 Mixtures

Remarks : No hazardous ingredients

Further ingredients

Chemical Name	CAS-No. EC-No. Registration number	Classification	GHS Classification	Concentration [%]

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**ROVIMIX® C-EC****0482978**

Version 1.4

Revision Date 14.10.2014

Print Date 16.03.2017

ascorbic acid (Vitamin C)	50-81-7 200-066-2			>= 97,5 - < 100
---------------------------	----------------------	--	--	-----------------

4. First aid measures**4.1 Description of first aid measures**

- General advice : No hazards which require special first aid measures.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No specific symptoms known.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

5. Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing media : Water
Foam

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : None known.

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Consider dust explosion hazard.

6. Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Use personal protective equipment.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROVIMIX® C-EC

0482978

Version 1.4

Revision Date 14.10.2014

Print Date 16.03.2017

Avoid dust formation.

6.2 Environmental precautions

Try to prevent the material from entering drains or water courses.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel.
Flush away traces with water.

Sweep up and shovel.

6.4 Reference to other sections

For personal protection see section 8.
For disposal considerations see section 13.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.

Advice on protection against fire and explosion : Avoid dust formation.
Provide appropriate exhaust ventilation at places where dust is formed.
Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Protect from humidity.
: Keep container tightly closed and dry.

Advice on common storage : No special restrictions on storage with other products.

Storage temperature : < 25 °C

7.3 Specific end use(s)

Specific use(s) : Not applicable

8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
In case of high dust concentration use a dust mask applicable to local conditions.

Hand protection : Glove material: for example nitrile rubber

Eye protection : Safety glasses
Skin and body protection : Lightweight protective clothing
Hygiene measures : General industrial hygiene practice.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : powder
Colour : white - pale yellow
Odour : odourless
Odour Threshold : No information available.
pH : No data available
Melting point/range : not determined
Boiling point/boiling range : not determined
Flash point : Not applicable
Flammability (solid, gas) : May form combustible dust concentrations in air
Vapour pressure : Not applicable
Relative vapour density : Not applicable
Density : not determined
Water solubility : slightly soluble
Partition coefficient: n-octanol/water : Not applicable
Auto-ignition temperature : No data available
Thermal decomposition : No data available
Explosive properties : No data available
Oxidizing properties : No data available

9.2 Other information

No data available

10. Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Dust may form explosive mixture in air.

10.4 Conditions to avoid

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**ROVIMIX® C-EC****0482978**

Version 1.4

Revision Date 14.10.2014

Print Date 16.03.2017

Heat.

10.5 Incompatible materials

Bases
Strong acids
Strong oxidizing agents

10.6 Hazardous decomposition products

No decomposition if used as directed.

11. Toxicological information**11.1 Information on toxicological effects**

Acute oral toxicity	: LD50 (Rat): > 5 000 mg/kg (calculated from LD50 of components)
Acute inhalation toxicity	: No data available
Acute dermal toxicity	: Acute toxicity estimate : > 5 000 mg/kg (Calculation method)
Skin corrosion/irritation	: Prolonged skin contact may cause skin irritation.
Serious eye damage/eye irritation	: Dust contact with the eyes can lead to mechanical irritation.
Respiratory or skin sensitisation	: Did not cause sensitization. (Guinea pig, Optimization Test (Maurer)) Information refers to the main component.
Genotoxicity in vitro	: No data available
Genotoxicity in vivo	: No indication for human genotoxicity known. Information refers to the main component.
Carcinogenicity	: No indication for carcinogenicity known.
Reproductive toxicity	: This information is not available.
STOT - repeated exposure	: NOAEL (Oral, Rat) : 2 000 mg/kg bw/d Chronic toxicity study (2 years) Information refers to the main component.
Experience with human exposure	: RDA (Recommended Daily Allowance) 60 mg Information refers to the main component.
Experience with human exposure: Ingestion	: Oral intake up to 9 g ascorbic acid per day does not produce any serious toxic effects. However, diarrhoea can occur even with lower consumption levels.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**ROVIMIX® C-EC****0482978**

Version 1.4

Revision Date 14.10.2014

Print Date 16.03.2017

12. Ecological information**12.1 Toxicity**

Toxicity to fish : Oncorhynchus mykiss (rainbow trout)
LC50 (96 h) 1 020 mg/l
Information refers to the main component.
(OECD Test Guideline 203)

12.2 Persistence and degradability

Biodegradability : Well inherently biodegradable.
100 % (15 d)
97 %, (5 d)
(OECD Test Guideline 302B)
Information refers to the main component.

12.3 Bioaccumulative potential

Bioaccumulation : Bioaccumulation is unlikely.
Partition coefficient: n-
octanol/water : Not applicable

12.4 Mobility in soil

Distribution among : No data available
environmental compartments

12.5 Results of PBT and vPvB assessment

Assessment : not determined

12.6 Other adverse effects

Additional ecological : There is no data available for this product.
information

13. Disposal considerations**13.1 Waste treatment methods**

Product : Offer surplus and non-recyclable solutions to a licensed
disposal company.

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

14. Transport information**14.1 UN number**

ADR
Not dangerous goods
RID
Not dangerous goods
IMDG
Not dangerous goods
IATA

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**ROVIMIX® C-EC****0482978**

Version 1.4

Revision Date 14.10.2014

Print Date 16.03.2017

Not dangerous goods

14.2 Proper shipping name**ADR**

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.3 Transport hazard class**ADR**

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.4 Packing group**ADR**

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.5 Environmental hazards**ADR**

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.6 Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

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

No data available

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

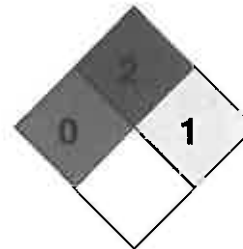
**ROVIMIX® C-EC****0482978**

Version 1.4

Revision Date 14.10.2014

Print Date 16.03.2017

NFPA Classification : Health hazard: 0
Fire Hazard: 2
Reactivity Hazard: 1

**15.2 Chemical Safety Assessment**

Not applicable

16. Other information

The information provided in this 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.

Abbreviations: 67/548/EEC= Dangerous Substances Directive. 1999/45/EC= Dangerous Preparations Directive. Regulation (EC) No. 1272/2008= Regulation on classification, labelling and packaging of substances and mixtures. DNEL= Derived No-Effect Level. PNEC= Predicted No-Effect Concentration. NFPA= National Fire Protection Association (USA). IATA= International Air Transport Association. IMDG= International Maritime Dangerous Goods. RID= International Rule for Transport of Dangerous Substances by Railway; ADR= European Agreement concerning the International Carriage of Dangerous Goods by Road. TWA= Time Weighted Average. STEL= Short term exposure limit. WEL = Workplace Exposure Limit.