

Information Sheet

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

1.1. Product identifier

Code: HSS--Series
Product name: Fairy Dust Codes from 005 to 120 -
-

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

Intended use: Ceramic decoration

1.3. Details of the supplier of the safety data sheet

Name: COLOROBBIA S.P.A.
Full address: Via Gramsci 14
District and Country: 50056 Montelupo F.no (FI)
Italia
Tel. +39 0571 7091
Fax +39 0571 709.850

e-mail address of the competent person responsible for the Safety Data Sheet: ambientemsds@colorobbia.it

1.4. Emergency telephone number

For urgent inquiries refer to:
CAV - Ospedale Pediatrico Bambino Gesù - Roma - tel. +39 06 68593726
Az. Ospedaliera Università Foggia - Foggia - tel. 800183459
Az. Ospedaliera - A. Cardarelli- Napoli- tel. +39 081 7472870
CAV - Policlinico Umberto I- Roma - tel. +39 06 49978000
CAV - Policlinico A. Gemelli - Roma - tel. +39 06 3054343
Az. Ospedaliera Careggi - U.O. Tossicologia Medica - Firenze - tel. +39 055 7947819
CAV - Centro Nazionale di Informazione Tossicologica - Pavia - tel. +39 0382 24444
Ospedale Niguarda Ca' Granda - Milano - tel. +39 02 66101029
Az. ospedaliera Papa Giovanni XXIII - Bergamo - tel. 800883300

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication: --

2.2. Label elements

Hazard pictograms: --

Signal words: --

Hazard statements: --

Precautionary statements: --

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

SECTION 3. Composition/information on ingredients ... / >>

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
----------------	-------------	--------------------------------

Frit group 4

CAS	65997-18-4	40 ≤ x < 60
-----	------------	-------------

EC	266-047-6	
----	-----------	--

INDEX

KAOLIN

CAS	1332-58-7	1 ≤ x < 5
-----	-----------	-----------

EC	310-194-1	
----	-----------	--

INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products (carbon oxide, toxic pyrolysis products, etc).

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), a depressurised mask with facemask covering the whole of the operator's face or a self-respirator (self-protector) in the event of large quantities of fume.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures ... / >>

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 16 grudnia 2011r
	TLV-ACGIH	ACGIH 2018

Frit group 4

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min
		mg/m3	ppm
TLV-ACGIH		10	

KAOLIN

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min
		mg/m3	ppm
VLA	ESP	2	
WEL	GBR	2	
NDS	POL	10	INHAL
TLV-ACGIH		2	

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls

Comply with the safety measures usually applied when handling chemical substances.

HAND PROTECTION

None required.

SKIN PROTECTION

None required.

EYE PROTECTION

SECTION 8. Exposure controls/personal protection ... / >>

None required.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	suspension
Colour	Not available
Odour	odourless
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	Not applicable
Evaporation Rate	Not available
Flammability of solids and gases	Not available
Lower inflammability limit	Not applicable
Upper inflammability limit	Not applicable
Lower explosive limit	Not applicable
Upper explosive limit	Not applicable
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Solubility	insoluble solute
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	0,08 %
VOC (volatile carbon) :	0,06 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity ... / >>**10.5. Incompatible materials**

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information**11.1. Information on toxicological effects**Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:

Not classified (no significant component)

LD50 (Oral) of the mixture:

Not classified (no significant component)

LD50 (Dermal) of the mixture:

Not classified (no significant component)

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Information not available

12.2. Persistence and degradability

Information not available

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

**SECTION 14. Transport information ... / >>****14.5. Environmental hazards**

Not applicable

14.6. Special precautions for user

Not applicable

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

Information not relevant

SECTION 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Seveso Category - Directive 2012/18/EC: NoneRestrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
None

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Information not available

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information**LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Frits belonging to various groups:

Group 1: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, without Pb, Ba, Zn and Cd.

Group 2: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, with Zn and without Pb, Ba or Cd.

Group 3: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, with Ba and without Pb, Zn or Cd.

Group 4: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, with Zn and Ba and without Pb or Cd.

Group 5: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, with Pb and without Cd.

Group 5.1 Lead Bisilicates (0% < PbO ≤69%; SiO₂ ≥30%; Al₂O₃ ≥1%).

Group 5.2 Lead Borosilicates (0-69% PbO, SiO₂ ≥30%, Al₂O₃ ≥ 0,5%, B₂O₃ >0%)

Group 6: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation, with Pb and Zn and/or Ba (0 < PbO ≤69; SiO₂ ≥30; Al₂O₃ ≥1)

Group 7: Ceramic frits containing general elements that are not included in Annex I of Directive 67/548/EEC and with Cd and some of the elements Zn, Ba, and Pb (0 < PbO <69; 0 < CdO ≤5; SiO₂ ≥30; Al₂O₃ ≥1)

Group 8 – frits containing lead expressed in % PbO and/or Cd expressed in % CdO, containing general elements that are not included in annex 1 of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation (Zr, Si, Al, Mg, Ca, K, Na, etc.), that are not included in the ther groups definition.

8.1 : lead monosilicates frits (0,05%<PbO<80%; Si O₂ < 30%; Al₂O₃ < 1%)

8.2 : lead borosilicates frits (0,05%<PbO<80%; Si O₂ < 30%; Al₂O₃ < 0,5%; B₂O₃ > 0%)

8.3 : lead and cadmium frits (0.05%<PbO<80%; 0%<Cd<5%; SiO₂ < 30% o 0,05% PbO<80%; 5% < CdO < 24%)

Group 9 – coloured frits generally containing elements which are not listed in annex 1 of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation (Zr, Si, Al, Mg, Ca, K, Na, etc.), and same metallic oxides listed in annex 1 of Directive 67/548/EEC and Annex VI of 1272/2008 Regulation :

SECTION 16. Other information ... / >>9.1 : frits Ni ($0\% < \text{NiO} \leq 3,8\%$) 9.2 : frits Ni ($3,8\% < \text{NiO} \leq 15\%$)9.3 : frits V ($0\% < \text{V}_2\text{O}_5 \leq 15,5\%$)9.4 : frits Cd ($5\% < \text{CdO} \leq 28\%$)

Group 10 and subgroups - frits that contain B, Se, Sb and Co.

10.0 : $\text{SiO}_2 \geq 30\%$; $\text{Al}_2\text{O}_3 \geq 0,5$; $0\% < \text{B}_2\text{O}_3 \leq 34$;10.1 : $\text{SiO}_2 \geq 30\%$; $\text{Al}_2\text{O}_3 \geq 1\%$; $\text{B}_2\text{O}_3 = 0$; $0 < \text{Se} \leq 1,5\%$; o $\text{SiO}_2 \geq 30$; $\text{Al}_2\text{O}_3 \geq 0,5$; $0 < \text{B}_2\text{O}_3 \leq 34\%$; $0 < \text{Se} \leq 1,5\%$ 10.2 : $\text{SiO}_2 \geq 30\%$; $\text{Al}_2\text{O}_3 \geq 1$; $\text{B}_2\text{O}_3 = 0$; $0 < \text{Sb}_2\text{O}_3 \leq 2$; o $\text{SiO}_2 \geq 30\%$; $\text{Al}_2\text{O}_3 \geq 0,5$; $0 < \text{B}_2\text{O}_3 \leq 34$; $0 < \text{Sb}_2\text{O}_3 \leq 2$;10.3 : $\text{SiO}_2 \geq 30\%$; $\text{Al}_2\text{O}_3 \geq 1$; $\text{B}_2\text{O}_3 = 0$; $0 < \text{Co}_3\text{O}_4 \leq 2$ o $\text{SiO}_2 \geq 30\%$; $\text{Al}_2\text{O}_3 \geq 0,5$; $0 < \text{B}_2\text{O}_3 \leq 34$; $0 < \text{Co}_3\text{O}_4 \leq 2$;

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 06 / 11 / 14 / 15.