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

1.1 Product identification:

Product name: Modelling Foam Clay - white/grey/black

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

Relevant identified uses: Intelligence development. Plastic toys.

Uses advised against: Not applicable

1.3 Details of the supplier of the safety data sheet

Responsible distributor:

ASSYST bvba / A.S.O.W. bvba
Hellegatstraat 13a
2590 Berlaar
Belgium
Tel: +32 495 50 61 14 / +32 496 83 70 27
Website: www.assyst.org / www.artsuppliesonweb.com
E-mail: vera.opsommer@assyst.org

1.4 Emergency telephone number:

For Belgium: Call the **Poison Control Center (070 245 245 - free)**, if not available: **02 264 96 30** (normal rate) or your doctor. In life-threatening situations, always call the European emergency number **112**.

NHS 24 Direct: For help from a GP, visit your GP surgery's website, use an online service to contact your GP, or call the surgery. **For urgent medical help**, use the NHS 111 online service, or **call 111** if you are unable to get help online. **For life-threatening emergencies, call 999** for an ambulance. There is more information about getting medical help on the NHS website.

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture:

Classification according to Directive (EC) No 1272/2008 and its amendments.

The product is not classified as dangerous according to the CLP Regulation (EC) No 1272/2008.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]:

No specific labelling is required for this substance.

2.3 Other hazards:

REACH Art. 57-59: The mixture does not contain any substances of very high concern (SVHC) at the SDS printing date.

SECTION 3: Composition and information on ingredients

3.2 Mixture:

Name:	**CAS No.** **EC No.** **Index No.** **REACH No.**	**% weight**	**Classification according to the CLP Regulation (EC) No 1272/2008**
Polyvinyl alcohol, hydrolysed	98002-49-4 Not available Not available Not available	54	Not classified
Water	7732-18-5 231-791-2 Not available Not available	22	Not classified
Water-soluble acrylic resin	25767-39-9 Not available	19	Not classified

	Not available Not available		
Glycerine	56-81-5 200-289-5 Not available Not available	3	Not classified
Titanium dioxide	13463-67-7 215-282-2 Not available Not available	0-2	Not classified
CI pigment blue 15	147-14-8 205-685-1 Not available Not available	0-2	Not classified
CI pigment violet 23	6358-30-1 228-767-9 Not available Not available	0-2	Not classified
CI pigment orange 13	3520-72-7 222-530-3 Not available Not available	0-2	Not classified
CI pigment green 7	1328-53-6 215-524-7 Not available Not available	0-2	Not classified
Pigment red	6041-94-7 Not available Not available Not available	0-2	Not classified
CI pigment red 245	68016-05-7 268-171-6 Not available Not available	0-2	Not classified
CI pigment yellow 14	5468-75-7 226-789-3 Not available Not available	0-2	Not classified
Fluorescent red-violet	Not available Not available Not available Not available	0-2	Not classified

SECTION 4: First aid measures

4.1 Description of first aid measures:

Eye contact:

If this product comes into contact with the eyes:

- ✓ wash out immediately with water
- ✓ seek medical attention if irritation persists
- ✓ The removal of contact lenses after an eye injury should only be carried out by competent personnel.

Skin contact:

In case of skin or hair contact:

- ✓ Rinse skin and hair with running water (and soap if available)
- ✓ Get medical attention in case of irritation.

Inhalation:

- ✓ If vapours, aerosols or combustion products are inhaled, remove from contaminated area
- ✓ other measures are usually not necessary

Ingestion:

- ✓ Give a glass of water immediately
- ✓ First aid is generally not required. If in doubt, contact a poison information centre or a doctor.

4.2 Most important symptoms and effects, both acute and delayed:
See section 11.
4.3 Indication of any immediate medical attention and special treatment needed:
Treat symptomatically.
For copper poisoning:

- ✓ Empty the stomach by flushing with water, milk, sodium bicarbonate solution or a 0.1% solution of potassium ferrocyanide (the resulting copper ferrocyanide is insoluble), unless vomiting has been excessive.
- ✓ Administer egg white and other emollients.
- ✓ Maintain electrolyte and fluid balance.
- ✓ Morphine or meperdine (Demerol) may be needed to control pain.
- ✓ If the symptoms persist or worsen (especially circulatory collapse or cerebral disturbances), try BAL intramuscularly or penicillamine in accordance with the supplier's recommendations.
- ✓ Treat shock vigorously with blood transfusions and perhaps vasopressor drugs.
- ✓ If intravascular haemolysis becomes apparent, protect the kidneys by maintaining a diuresis with mannitol and possibly by alkalising the urine with sodium bicarbonate.
- ✓ It is unlikely that methylene blue would be effective against the occasional methaemoglobinaemia and it could exacerbate the subsequent haemolytic episode.
- ✓ Institutional measures for impending kidney and liver failure.
- ✓ A role for activated charcoal or vomiting has not yet been proven.
- ✓ In case of severe poisoning, CaNa2EDTA has been suggested.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media:
Suitable extinguishing agents
Use foam, drying powder.
5.2 Special hazards arising from the substance or mixture
Incompatibility with fire:
Avoid contamination with oxidising agents, i.e. nitrates, oxidising acids, chlorine bleach, swimming pool chlorine, etc., as this can lead to ignition.
5.3 Advice for firefighters:
Extinguishing a fire:

- ✓ alert the fire brigade and give the location and nature of the danger
- ✓ Wear respiratory equipment and protective gloves.

Fire/explosion hazard:

- ✓ flammable solid that burns but has difficulty spreading flames; it is estimated that most organic substances are flammable (about 70%) - depending on the conditions under which the burning process takes place, such materials can cause fires and/or dust explosions
- ✓ Organic powders that are finely divided over a range of concentrations, regardless of particle size or shape, and are suspended in air or other oxidising media can form explosive dust/air mixtures and result in fire or dust explosions (including secondary explosions).

Combustion products include:

- ✓ - carbon monoxide (CO)
- ✓ - carbon dioxide (CO2)
- ✓ - hydrogen cyanide
- ✓ - Nitrogen oxides (NOx)
- ✓ - Other pyrolysis products typical of the combustion of organic material.

SECTION 6: Accidental release measures for the substance or mixture

6.1 Personal precautions, protective equipment and emergency procedures:
Avoid dust formation. Avoid breathing vapours/mist/gas.
For personal protection, see section 8.
6.2 Environmental precautions:

See section 12.

6.3 Methods and material for containment and cleaning up

Small discharges:

- ✓ Clean up all spills immediately
- ✓ Avoid contact with skin and eyes

Large discharges:

- ✓ being free of staff and going against the wind
- ✓ alert the fire brigade and give the location and nature of the danger

6.4 Reference to other sections:

Advice on personal protective equipment is given in section 8.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling

Safe use:

- ✓ limit all unnecessary personal contact
- ✓ Wear protective clothing where there is a risk of exposure
- ✓ organic powders that are finely divided over a range of concentrations, regardless of particle size or shape, and suspended in air or other oxidising media can form explosive dust/air mixtures and result in fire or dust explosion (including secondary explosions).
- ✓ Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks and flames.

Fire and explosion protection:

See section 5.

Other information:

- ✓ Store in original containers
- ✓ Keep containers tightly closed.

7.2 Conditions for safe storage, including any incompatibilities

Suitable container:

- ✓ lined metal tinplate, lined metal tinplate / tinplate
- ✓ plastic bucket

Storage incompatibility:

- ✓ Avoid reaction with oxidising agents

7.3 Specific end use:

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

Derived no-effect doses (DNEL)

Not available

Predicted No Effect Level (PNEL)

Not available

Occupational exposure limit values (OEL)

Ingredient data:

Source	Ingredient	Material name	TWA	PLEASE NOTE	Peak	Notes
Occupational exposure limits in the UK (WELs)	Glycerine	Glycerine, mist	10 mg/m³	Not available	Not available	Not available
Occupational exposure limits in the UK (WELs)	Titanium dioxide	Titanium dioxide totally inhalable	10 mg/m³	Not available	Not available	Not available
Occupational exposure limits in the UK (WELs)	Titanium dioxide	Titanium dioxide inhalable	4 mg/m²	Not available	Not available	Not available

8.2 Exposure controls:

Appropriate technical measures
Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be very effective in protecting workers and are usually independent of worker interactions to provide this high level of protection.
Personal protection:
Eye and face protection:
- ✓ safety goggles with side shields
- ✓ chemical safety goggles
- ✓ Contact lenses may present a special hazard; soft contact lenses may absorb and concentrate irritants.

Skin protection:
See hand protection below.
Protection of hands / feet:
The selection of a suitable glove depends not only on the material, but also on other quality characteristics that differ from manufacturer to manufacturer. If the chemical is composed of several substances, the durability of the glove materials cannot be calculated in advance and must therefore be tested before use.
Experience shows that the following polymers are suitable as glove material for protection against undissolved dry solids, where no abrasive particles are present:
- ✓ polychloroprene

Other protection:
No special equipment required when handling small quantities.
Otherwise:
overall.
Thermal hazards:
Not available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:
General information :

Physical state :	solid.
Colour:	white, grey or black
Odour :	Odourless.
Melting point/melting range :	Not available
Flash point	Not available
Solubility (present):	Not available

9.2 Other information
No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:
See section 7.2.
10.2 Chemical Stability:
The product is considered stable and no dangerous polymerisation will occur.
10.3 Potentially hazardous reactions:
See section 7.2.
10.4 Conditions to avoid
See section 7.2.
10.5 Chemically Interacting Materials:
See section 7.2.
10.6 Hazardous decomposition products:
See section 5.3.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Inhalation:

It is assumed that the material does not cause any adverse health effects or respiratory tract irritation (as classified by EC directives with animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that appropriate control measures be applied in an occupational setting.

Copper poisoning following exposure to copper dust and fumes can lead to headaches, cold sweats and a weak pulse. Capillary damage, kidney, liver and brain damage are the long-term symptoms of such poisoning.

Ingestion:

The material is not classified as 'harmful if swallowed' by EC directives or other classification systems. This is due to the lack of supporting evidence from animals or humans. A metallic taste, nausea, vomiting and a burning sensation in the upper abdomen occur after ingestion of copper and its derivatives. The vomit is usually green/blue and discolours the infected skin.

Skin contact:

It is assumed that the material does not cause any adverse health effects or skin irritation after contact (as classified according to EC directives with animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

Exposure to copper, through the skin, comes from its use in pigments, ointments, jewellery, dental amalgams and IUDs (intrauterine devices), and in killing fungi and algae. Although copper is used in the treatment of water in swimming pools and reservoirs, there are no reports of toxicity in these applications.

Eye:

Although the material is not thought to be irritating (as classified by EC Directives), direct contact with the eye may cause transient discomfort by tearing or conjunctival redness (as in windburn). Slight abrasion may also result.

Copper salts in contact with the eye can cause inflammation of the conjunctiva, or even ulceration and cloudiness of the comea.

Chronic:

Long-term exposure to the product is not believed to have chronic effects that are harmful to health (as classified by EC Directives based on animal models); nevertheless, exposure by all routes should be minimised as a matter of course. Dust produced by proteins can sometimes make workers sensitive, as can other foreign objects. Symptoms include asthma occurring shortly after exposure, with wheezing, narrowing of the airways and difficulty in breathing.

For copper and its compounds (usually copper chloride):

Acute toxicity: There are no reliable results for acute oral toxicity. Animal studies show that exposure of the skin to copper can lead to skin hardness, scarring, exudation and reddish changes.

There are concerns that this material may cause cancer or mutations, but there is not enough data to make an assessment.

	Toxicity	**Irritation**
Kneadable Foam Clay - white/grey/black	Not available	Not available
Glycerine	Intraperitoneal (mouse) LD50: 8700 mg/kg	Not available
	Intraperitoneal (rat) LD50: 4420 mg/kg	
	Intravenous (mouse) LD50: 4250 mg/kg	
	Intravenous (rat) LD50: 5566 mg/kg	
	Oral (guinea pig) LD50: 7750 mg/kg	
	Oral (mouse) LD50: 4090 mg/kg	
	Oral (rat) LD50: 12,600 mg/kg	
	Oral (human) TDLo: 1428 mg/kg	
	Onderhuis (Mouse) LD50: 91 mg/kg	
	Onderhuis (rat) LD50: 100 mg/kg	
C.I. Pigment blue 02	Oral (rat) LD50: > 10,000 mg/kg	Eye (human): not irritating
		Skin (human): non-irritating
C.I. Pigment violet 23	Oral (rat) LD50: > 2,000 mg/kg	Skin (rabbit): non-irritating
C.I. Pigment Green 7	Oral (rat) LD50: > 2,000 mg/kg	Not available
Pigment red	Oral (rat) LD50: 16 000 mg/kg	Not available

C.I. Pigment Yellow 14	Oral (rat) LD50: 5,000 mg/kg	Not available

Glycerine:
Asthma-like symptoms may persist for months or even years after exposure has ceased. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS), which can occur following exposure to high concentrations of highly irritating substances.
C.I. Pigment violet 23:
No carcinogenic effects were observed during a 43-day feeding study with Pigment Violet 23.
Polyvinyl alcohol, hydrolysed and water and acrylic resin, water soluble and C.I. pigment green 7 & C.I. pigment red 245:
No significant acute toxicological data found in literature search.

SECTION 12: Ecological information

12.1 Toxicity:

	End point	Duration of test (hours)	Type	Value
Kneadable Foam Clay - white/grey/black	Not available	Not available	Not available	Not available
Polyvinyl alcohol, hydrolysed	Not available	Not available	Not available	Not available
Water	Not available	Not available	Not available	Not available
Acrylic resin, water-soluble	Not available	Not available	Not available	Not available
Glycerine	LC50	96	Fish	> 11 mg/l
Titanium dioxide	LC50	96	Fish	155 mg/l
	EC50	48	Crustacea	> 10 mg/l
	EC50	72	Algae or other aquatic plants	5.83 mg/l
	EC20	72	Algae or other aquatic plants	1.81 mg/l
	NOEC	336	Fish	0.089 mg/l
Pigment red	LC50	96	Fish	> 100 mg/l
	EC50	48	Crustacea	> 110 mg/l
	NOEC	504	Crustacea	30 mg/l
C.I. pigment yellow 14	LC50	96	Fish	124 mg/l

12.2 Persistence and Degradability:

Ingredient	Persistence: water/soil	Persistence: air
Water	Low	Low
Glycerine	Low	Low
Titanium dioxide	High	High
C.I. pigment blue 15	High	High
C.I. pigment yellow 14	High	High

12.3 Bioaccumulation:

Ingredient	Bioaccumulation
Water	LOW (LogKOW = - 1.38)
Glycerine	LOW (LogKOW = - 1.76)
Titanium dioxide	LOW (BCF = 10)
C.I. pigment blue 15	LOW (BCF = 11)
C.I. pigment orange 13	LOW (BCF = 5.6)
C.I. pigment green 7	LOW (BCF = 74)
C.I. pigment yellow 14	LOW (BCF = 4.9)

12.4 Mobility in Soil:

Ingredient	Mobility
Water	LOW (KOC = 14.3)
Glycerine	HIGH (KOC = 1)
Titanium dioxide	LOW (KOC = 23.74)
C.I. pigment blue 15	LOW (KOC = 100000000)
C.I. pigment yellow 14	LOW (KOC = 217800)

12.5 Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not available	Not available	Not available
PBT criteria met?	Not available	Not available	Not available

12.6 Other Harmful Effects:
No data available

SECTION 13: Instructions for disposal
13.1 Waste treatment methods:
Disposal of the product / packaging:
- ✓ Do not allow wash water from cleaning or process equipment to enter the sewage system
- ✓ it may be necessary to collect all the wash water for treatment before disposal

Waste treatment options:
Not available
Sewerage options:
Not available

SECTION 14: Information relating to carriage
14.1 UN number
The transport of this substance is not subject to regulations.
14.2 Proper load name according to UN Model Regulations
The transport of this substance is not subject to regulations.
14.3 Transport hazard class(es)
The transport of this substance is not subject to regulations.
14.4 Packing group
The transport of this substance is not subject to regulations.
14.5 Environmental hazards
The transport of this substance is not subject to regulations.
14.6 Special precautions for the user
The transport of this substance is not subject to regulations.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

SECTION 15: Legally required information
15.1 Safety, health and environmental regulations and legislation specific to the substance or mixture
Polyvinyl alcohol, hydrolysed (98002-49-4) can be found on the following regulatory lists:
- ✓ Not applicable.

Water (7732-18-5) can be found on the following regulatory lists:
- ✓ EU REACH Regulation (EC) No 1907/2006 - Annex IV - Exemptions from the registration requirement in accordance with Article 2(7)(a)
- ✓ European Customs Inventory of Chemical Substances ECICS
- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

Acrylic resin, water-soluble (25767-39-9) can be found on the following regulatory lists:
- ✓ European Customs Inventory of Chemical Substances ECICS
- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

Glycerine (56-81-5) can be found on the following regulatory lists:
- ✓ European Customs Inventory of Chemical Substances ECICS
- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)
- ✓ Occupational exposure limits in the UK (WELs)

Titanium dioxide (13463-67-7) can be found on the following regulatory lists:
- ✓ EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of substances
- ✓ European Customs Inventory of Chemical Substances ECICS
- ✓ European Trade Union Confederation (ETUC) priority list for REACH authorisation

- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)
- ✓ International Agency for Research on Cancer (IARC) - Agents classified by the IARC monographs
- ✓ Occupational exposure limits in the UK (WELs)

C.I. pigment blue 15 (147-14-8) can be found on the following regulatory lists:

- ✓ European Customs Inventory of Chemical Substances ECICS
- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

C.I. pigment violet 23 (6358-30-1) can be found on the following regulatory lists:

- ✓ European Customs Inventory of Chemical Substances ECICS
- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

C.I. pigment orange 13 (3520-72-7) can be found on the following regulatory lists:

- ✓ EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
- ✓ EU REACH Regulation (EC) No.1907 / 2006 - Annex XVII (Appendix 2) Carcinogenic substances: category 1B (Table 3.1) / category 2 (Table 3.2)
- ✓ European Trade Union Confederation (ETUC) priority list for REACH authorisation
- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)
- ✓ Regulation (EC) No 1272/2008 of the European Union (EU) on classification, labelling and packaging of substances and mixtures - Annex VI
- ✓ International Agency for Research on Cancer (IARC) - Agents classified by the IARC monographs

C.I. pigment green 7 (1328-53-6) can be found on the following regulatory lists:

- ✓ European Customs Inventory of Chemical Substances ECICS
- ✓ European list of notified chemical substances (ELINCS)
- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

C.I. pigment red (6041-94-7) can be found on the following regulatory lists:

- ✓ European Customs Inventory of Chemical Substances ECICS
- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

C.I. pigment red 245 (68016-05-7) can be found on the following regulatory lists:

- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

C.I. pigment yellow 14 (5468-75-7) can be found on the following regulatory lists:

- ✓ EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
- ✓ EU REACH Regulation (EC) No.1907 / 2006 - Annex XVII (Appendix 2) Carcinogenic substances: category 1B (Table 3.1) / category 2 (Table 3.2)
- ✓ European Customs Inventory of Chemical Substances ECICS
- ✓ European Trade Union Confederation (ETUC) priority list for REACH authorisation
- ✓ European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)
- ✓ Regulation (EC) No 1272/2008 of the European Union (EU) on classification, labelling and packaging of substances and mixtures - Annex VI
- ✓ International Agency for Research on Cancer (IARC) - Agents classified by the IARC monographs

This Safety Data Sheet is prepared in accordance with the following EU legislation and its amendments, as applicable: 98/24 / EC, 92/85 / EC, 94/33 / EC, 91/689 / EC, 1999/13 / EC, Commission Regulation (EU) 2015/830, Regulation (EC) 1272/2008 and their amendments.

15.2 Chemical safety assessment:

For more information, consult the chemical safety assessment and exposure scenarios prepared by your supply chain, if available.

SECTION 16: Other information

Full text of risk and hazard codes:

Not applicable

Other information:

Ingredients with multiple CAS numbers

Name	CAS No.
C.I. pigment violet 23	6358-30-1 / 215247-95-3
C.I. pigment green 7	1328-53-6 / 1328-45-6 / 64333-62-6 / 67053-86-5 / 72779-62-5 / 73560-40-4 / 81180-93-0 / 85256-45-7 / 14832-14-5

The SDS is a tool for hazard communication and should be used as an aid to risk assessment. There are many factors that determine whether the reported hazards are risks in the workplace or in other environments.

Definitions and abbreviations:

PC-TWA: permissible concentration time-weightedaverage
PC-STEL: Permitted concentration - short-term exposure limit
IARC: International Agency for Research on Cancer
ACGIH: US government industrial hygienists conference
STEL: Short-term exposure limits
TEEL: Temporary emergency exposure limit
IDLH: Immediate hazard to life or health
OSF: Odour Safety Factor
NOAEL: Level with no observed adverse effect
LOAEL: Lowest observed adverse effect level
TLV: Threshold Limit Value
LOD: detection limit
OTV: Odour threshold
BCF: Bioconcentration Factors
BEI: Biological Exposure Index