



SAFETY DATA SHEET

RETARDER

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

PRODUCT NAME: RETARDER

Date of compilation: 26/09/2013

Date of revision: 16/02/2015

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: RETARDER

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

Relevant uses: Additive for varnishes and paints

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet: Jackson's Art Supplies
1 Farleigh Place
N16 7SX London
www.jacksonsart.com

Tel: +44 (0)207 254 0077
9-5:30 Mon-Fri
10-6 Saturday

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLP Regulation (EC) n° 1272/2008: The product is not classified as dangerous according to CLP Regulation (EC) n° 1272/2008.

2.2. Label elements

CLP Regulation (EC) n° 1272/2008: See sections 11 and 12.

2.3 Other hazards: Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

Components: None of the substances contained in the mixture are above the values fixed in Annex II of Regulation (EC) n°1907/2006

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Consult a doctor in case of discomfort with this Security Data Sheet.

By inhalation:

In case of symptoms, move the person affected into fresh air.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Security Data Sheet

By eye contact:

Rinse with water until the product has been eliminated. In case of problems, consult a doctor with the SDS of this product.

By ingestion:

In case of consumption in large quantities, it is recommended to seek medical assistance.

4.2 Most important symptoms and effects, both acute and delayed

Acute and delayed effects are indicated in sections 2 and 11.

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

Immediate / special treatment: Not applicable.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable, low risk of fire by the inflammability characteristics of the product in normal conditions of storage, manipulation and use. In the case of the existence of sustained combustion as a result of improper manipulation, storage or use any type of extinguishing agent can be used (ABC Powder, water,...)

5.2 Special hazards arising from the substance or mixture

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

5.3 Advice for fire-fighters

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies.

Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Isolate leaks provided that there is no additional risk for the people performing this task.

6.2 Environmental precautions

This product is not classified as dangerous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and material for containment and cleaning up

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents.

For any concern related to disposal consult section 13.

6.4 Reference to other sections

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

Handling requirements: Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

Technical recommendations for the prevention of fires and explosions: It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided.

Technical recommendations to prevent ergonomic and toxicological risks: Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

Technical recommendations to prevent environmental risks: It is not necessary to take special measures to prevent environmental risks. For more information see subsection 6.2

7.2 Conditions for safe storage, including any incompatibilities:

Technical measures for storage: Minimum Temp.: 5 °C
Maximum Temp.: 30 °C

General conditions for storage: Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Specific end use(s): Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Substances whose occupational exposure limits have to be monitored in the work environment.

There are no environmental limits for the substances contained in the product.

DNEL (Workers): Non-applicable

DNEL (General population): Non-applicable



PNEC: Non-applicable

8.2 Exposure controls



General security and hygiene measures in the work place: As a preventative measure it is recommended to use basic Personal Protection Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

Respiratory protection: The use of protection equipment will be necessary if a mist forms or if the professional exposure limits are exceeded.



Hand protection:

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory hand protection 	Chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	Replace the gloves at any sign of deterioration.

Ocular and facial protection:

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory face protection 	Panoramic glasses against liquid splash		EN 166:2001 EN 172:1994/A1:2000 EN 172:1994/A2:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

Bodily protection:

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing		EN ISO 13688:2013	For professional use only.
	Anti-slip work shoes		EN ISO 20347:2012 EN ISO 20344:2011	None

Additional emergency measures: It is not necessary to take additional emergency measures.

Environmental exposure controls: In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply): 0,36 % weight

V.O.C. density at 20 °C: 3,69 kg/m³ (3,69 g/L)

Average carbon number: 6,01

Average molecular weight: 104,81 g/mol

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties:**

For complete information see the product data sheet.

Appearance:

State at 20 °C: Liquid

Appearance: Characteristic

Colour: Colourless

Odour: Characteristic

Volatility:

Boiling point at atmospheric pressure: 135 °C

Vapour pressure at 20 °C: 1830 Pa

Vapour pressure at 50 °C: 9632 Pa (10 kPa)

Evaporation rate at 20 °C: Non-applicable *

Product description:

Density at 20 °C: 1016 kg/m³

Relative density at 20 °C: 1,02

Dynamic viscosity at 20 °C: 8000 - 10000 cP

Kinematic viscosity at 20 °C: Non-applicable *

Kinematic viscosity at 40 °C: Non-applicable *

Concentration: Non-applicable *

pH: 8 - 9

Vapour density at 20 °C: Non-applicable *

Partition coefficient n-octanol/water 20 °C: Non-applicable *

Solubility properties: Non-applicable *

Solubility in water at 20 °C: Non-applicable *

Decomposition temperature: Non-applicable *

Melting point/freezing point: Non-applicable *

Flammability:

Flash Point: Non Flammable (>60 °C)

Autoignition temperature: 240 °C

Lower flammability limit: Non-applicable *

Upper flammability limit: Non-applicable *

9.2 Other information

No data available. *Not relevant due to the nature of the product, not providing information property of its hazards.

Surface tension at 20 °C: Non-applicable *

Refraction index: Non-applicable *

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No hazardous reactions are expected if the following technical instructions storage of chemicals. See section 7.

Chemical stability: Chemically stable under the conditions of storage, handling and use.

Hazardous reactions: Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

Conditions to avoid: Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Incompatible materials:

Acids	Water	Combustive materials	Combustive materials	Others
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Hazardous decomposition products: See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

LD50 oral > 2000 mg/kg (rat)

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

Ingestion:

Acute toxicity: Based on available data, the classification criteria are not met

Corrosivity/Irritability: Based on available data, the classification criteria are not met

Inhalation:

Acute toxicity: Based on available data, the classification criteria are not met

Corrosivity/Irritability: Based on available data, the classification criteria are not met

Contact with the skin and the eyes:

Contact with the skin: Based on available data, the classification criteria are not met

Contact with the eyes: Based on available data, the classification criteria are not met

CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

Carcinogenicity: Based on available data, the classification criteria are not met

Mutagenicity: Based on available data, the classification criteria are not met

Reproductive toxicity: Based on available data, the classification criteria are not met

Sensitizing effects:

Respiratory: Based on available data, the classification criteria are not met

Cutaneous: Based on available data, the classification criteria are not met

Specific target organ toxicity (STOT)-time exposure:

Based on available data, the classification criteria are not met

Specific target organ toxicity (STOT)-repeated exposure:

Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met

Skin: Based on available data, the classification criteria are not met

Aspiration hazard:

Based on available data, the classification criteria are not met

Other information: Non-applicable

Specific toxicology information on the substances: Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

Toxicity values: Not available.

Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Results of PBT and vPvB assessment: Non-applicable

Other adverse effects: Not described

SECTION 13: DISPOSAL

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 01 99	Wastes not otherwise specified	Non dangerous

Type of waste (Regulation (EU) No 1357/2014): Non-applicable

Waste management (disposal and evaluation): Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management: In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated. Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Regulation (EC) No 528/2012: contains a preservative to protect the initial properties of the treated article. Contains 1,3-bis (hydroxymethyl)-5,5-dimethylimidazolidine-2,4-dione.

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

Active substances for which a decision of non-inclusion onto Annex I (Regulation (EU) No 528/2012): Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII, REACH): Non-applicable

Specific provisions in terms of protecting people or the environment: It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation: The product could be affected by sectorial legislation

15.2 Chemical safety assessment: The supplier has not carried out evaluation of chemical safety.

SECTION 16: ADDITIONAL INFORMATION

Legislation related to safety data sheets: This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EU) N° 453/2010, Regulation (EC) N° 2015/830) * indicates text in the SDS which has changed since the last revision.

Modifications related to the previous security card which concerns the ways of managing risks:

COMPOSITION/INFORMATION ON INGREDIENTS: Removed Content
Dangerous substance 1

Directive 67/548/EC and Directive 1999/45/EC: Pictograms
R Phrases
S Phrases
Supplementary information

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) n° 1272/2008: Non-applicable

Classification procedure: Non-applicable

Advice related to training: Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://esis.jrc.ec.europa.eu>

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Advice related to training:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

ATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50