



SAFETY DATA SHEET

Preferre 5602

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

1.1 Product identifier

Product name : Preferre 5602

Product type : Powder .

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

Use of the substance/mixture : Hardener, Woodworking industry.

substance/mixture

1.3 Details of the supplier of the safety data sheet

Supplier : TS Resins Limited (Mold)

Alyn Works,
Denbigh Road,
Mold,
Flintshire
CH7 1BF
United Kingdom
Tel +44 (0)1352 757 657

e-mail address of person responsible for this SDS : gavin.ding@tsresins.co.uk

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : Not available.

Supplier

Telephone number : +44 (0) 1352 750 416

Hours of operation : Monday 06:00 to Saturday 06:00 GMT

SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Not classified

Human health hazards :

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

SECTION 2: Hazard Identification

2.2 Label elements

Hazard symbol or symbols :

Indication of danger :

Risk phrases : This product is not classified according to EU legislation.

Safety phrases : Not applicable.

Supplemental label elements : Safety data sheet available for professional user on request.

Hazardous ingredients :

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. Fine dust clouds may form explosive mixtures with air. Combustible.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Product/ingredient	Identifiers	%	Classification		Type
Kaolin	EC: 310-194-1 CAS: 1332-58-7	25 - 35	67/548/EEC Not classified.	Regulation (EC) No. 1272/2008 [CLP] Not classified.	[2]
ammonium chloride	REACH #: 012119487950-27 EC: 235-186-4 CAS: 12125-02-9 Index: 017-014-00-8	10 - 20	Xn; R22 Xi; R36 See section 16 for the full text of the Rphrases declared above	Acute Tox. 4, H302 Eye Irrit. 2, H319 See section 16 for the full text of the Rphrases declared above	[1] [2]

SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Move exposed person to fresh air. If breathing is difficult, give oxygen. Get medical attention. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Get medical attention if adverse health effects persist or are severe.
- General** : Move the victim to a safe area as soon as possible. If unconscious, place in recovery position and seek medical advice. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Allow the victim to rest in a well-ventilated area.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards

SECTION 4: First aid measures

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : No specific data.
Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.
The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing : Use alcohol-resistant foam or water spray (mist).

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fine dust clouds may form explosive mixtures with air. Take precautionary measures substance or mixture against static discharges.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

Special precautions for : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency : Personnel No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental : Precautions Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Use spark-proof tools and explosion-proof equipment.

Large spill : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Note: see section 1 for emergency contact information and section 13 for waste disposal.

6.4 Reference to other : section see section 1 for emergency contact information
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.

Advice on general : occupational hygiene Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)

7.2 Conditions for safe storage, including any incompatibilities : Store in a segregated and approved area. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Keep container dry. Use appropriate containment to avoid environmental contamination. Store away from incompatible materials (see Section 10). Keep away from food, drink and animal feeding stuffs.

7.3 Specific end use(s)
Recommendations : Not available.
Industrial sector specific Solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Kaolin	EH40/2005 WELs (United Kingdom (UK), 8/2007). TWA: 2 mg/m ³ 8 hour(s). Form: respirable dust
ammonium chloride	EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 20 mg/m ³ 15 minute(s). Form: Fume TWA: 10 mg/m ³ 8 hour(s). Form: Fume

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Product/ingredient name	Type	Exposure	Value	Population	Effects
ammonium chloride	DNEL	Long term Dermal	190 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	33,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	9,9 mg/m ³	Consumers	Systemic
	DNEL	Long term Dermal	114 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	11,4 mg/kg bw/day ³	Consumers	Systemic

Predicted effect concentrations

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
ammonium chloride	PNEC	Fresh water	1,2 mg/l	-
	PNEC	Fresh water	11,2 mg/l	-
	PNEC	Sewage Treatment Plant	16,2 mg/l	-
	PNEC	Soil	0,163 mg/kg dwt	-

SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

Appropriate engineering Controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation controls or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : If operating conditions cause high dust concentrations to be produced, use dust goggles.

Hand protection : Wear chemical-resistant gloves (tested to EN374). Observe supplier's instructions concerning penetrability and breakthrough time.

Other skin protection : Wear suitable protective clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Recommended : Wear work clothing with long sleeves.
Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Wear appropriate respirator when ventilation is inadequate. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended : particulate filter

Environmental exposure : Emissions from ventilation or work process equipment should be checked to ensure controls they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Solid (Powder)

Colour : off white

Odour : None

Odour threshold : Not available.

pH : 7.5 to 8.6

Melting point/freezing point : Not available.

Initial boiling point and boiling range : Not available

Flash point : Closed cup: Not applicable.

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Burning time : Not applicable.

Burning rate : Not applicable.

Upper/lower flammability or explosive limits : Not applicable.

Vapour pressure : Not applicable.

Vapour density : Not available.

Relative density : Not available.

Density (liquid) : Not available.

SECTION 9: Physical and chemical properties

Solubility :	Soluble in water
Partition coefficient: n: octanol/water	Not available.
Auto-ignition temperature :	Not available.
Decomposition temperature :	Not available.
Viscosity : Dynamic:	Not applicable.
Explosive properties :	Fine dust clouds may form explosive mixtures with air.
Oxidising properties :	Not available.

9.2 Other information

VOC content :	0 % (w/w)
----------------------	-----------

SECTION 10: Stability and reactivity

10.1 Reactivity :	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability :	The product is stable.
10.3 Possibility of : hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid :	void the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Take precautionary measures against electrostatic discharges.
10.5 Incompatible materials :	Reactive or incompatible with the following materials: oxidizing materials
10.6 Hazardous : decomposition products	Under normal conditions of storage and use, hazardous should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ammonium chloride	LD50 Oral	Rat – Male, Female	1410 mg/kg	-
	LD50 Oral	Rat – Male Female	>2000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ammonium chloride	Skin - Oedema	Rabbit	0	24 hours	48 hours
	Skin - Erythema/Eschar	Rabbit	0	24 hours	48 hours

Conclusion/Summary : Not available.

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
ammonium chloride	skin	Guinea pig	Not Sensitising

Conclusion/Summary : Not available.

SECTION 11: Toxicological information

Mutagenicity

Product/ingredient name	Test	Experiment	Result
ammonium chloride	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: + & Experiment: In vitro	Positive
	-	Subject: Mammalian-Animal	Positive
	-	Experiment: In vivo Subject: Mammalian-Animal	Negative

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Information on the likely routes of exposure : Not available.

SECTION 11: Toxicological information

Potential acute health effects

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Eye contact : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Ingestion : No specific data.

Skin contact : No specific data.

Eye contact : Adverse symptoms may include the following:
irritation
redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects: Not available.

Potential delayed effects : Not available.

SECTION 11: Toxicological information

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
ammonium chloride	EC50 1618 mg/l Fresh water	Micro-organism	30 minutes Static
	NOEC 26,8 mg/l Marine water	Algae - Navicula sp.	10 days Static
	Acute EC50 101 mg/l Fresh water	Daphnia - Daphnia magna	48 hours Static
	Acute LC50 209 mg/l	Fish - Cyprinus carpio	96 hours Semi-Static
	Chronic NOEC 14,6 mg/l Fresh water	Daphnia - Daphnia magna	21 days Static
	Chronic NOEC 11,8 mg/l	Fish - Pimephales promelas	28 days Flow through

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential: Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

European waste catalogue (EWC)

Waste code	Waste designation
08 04 99	wastes not otherwise specified

Packaging

Methods of disposal : Waste packaging should be recycled.

Type of packaging	European waste catalogue (EWC)
Bag	15 01 01 paper and cardboard packaging 15 01 02 plastic packaging
Pallet	15 01 03 wooden packaging

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No	No	No	No
14.6 Special precautions for user	Not available.	Not available.	Not available.	Not available.
Additional information	-	-	-	-

14.7 Transport in bulk : Not available.
according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions :
on the manufacture,
placing on the market and
use of certain dangerous
substances, mixtures and
articles

Not applicable.

Other EU regulations

Europe inventory :

All components are listed or exempted.

Black List Chemicals :

Not listed

Priority List Chemicals :

Not listed

Integrated pollution :
prevention and control list
(IPPC) - Air

Not listed

Integrated pollution :
prevention and control list
(IPPC) – Water

Not listed

National regulations

15.2 Chemical Safety :
Assessments

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and :
Acronyms

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging
Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Eye Irrit. 2, H319

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Eye Irrit. 2, H319	Calculation method

Full text of abbreviated H:
Statements

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

Full text of classifications
[CLP/GHS]

Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4
Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE
IRRITATION - Category 2

Full text of abbreviated R
Phrases

R22- Harmful if swallowed.

R36- Irritating to eyes.

Full text of classifications
[DSD/DPD]

Xn - Harmful

Xi – Irritant

SECTION 16: Other information

Date of issue/ Date of revision :	16.11.2012
Date of previous issue :	20.11.2007
Previous product name :	Not available
Version :	2

Notice to reader

To the best of our knowledge, the information contained herein is accurate. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.