

MATERIAL SAFETY DATA SHEET

AERO-THERM

Pursuant to the European Parliament and Council Regulation (EC) No 1907/2006

Prepared on: 9 April 2010

Last revision on: 1 October 2010

1 – PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identification:

Product Name: Aero-Therm

1.2. Relevant identified uses of the substance or mixture and uses advised against material for thermal insulation of construction in building industry

1.3. Details of the supplier of the safety data sheet

Aero-Therm Products Limited

Unit 15, Riverside

Jubilee Way

Grange Moor

Wakefield

WF4 4TD

Tel 01924 848020

1.4. Emergency telephone number

England & Wales – NHS Direct 0845 4647 OR 111

Scotland – NHS24 08454 242424

Republic of Ireland – 01 809 2166

2 - HAZARDS IDENTIFICATION

2.1. Hazard classification/substance labeling/preparation/mixture:

Preparation is not classified as hazardous according to the classification rules in Directives 67/548/EEC or 1999/45/EC in all subsequent regulations.

The mixture is not classified as hazardous under Regulation (EC) No 1272/2008.

2.2. The most serious adverse effects on human health:

The preparation/mixture is not classified as dangerous for health. No adverse effects are supposed to occur by following recommended method of use and current use of personal protective equipment.

2.3. The most serious adverse effect on environment:

The preparation/mixture is not classified as dangerous for environment. No adverse effects of components preparation/mixture on environment are known.

2.4. The most serious physicochemical adverse effect: None

Preparation/mixture is not classified as flammable, oxidizing and explosive

2.5. Improper use and other risk: None

Recommended method of use is mentioned in application rules.

3 – COMPOSITION/DATA ON COMPONENTS

3.1. Chemical characteristic of the substance/preparation/mixture:

Preparation is a paste that contains polymer components, filler, additives and water.

Dangerous components are contained in significantly under-limit quantity and do not influence classification.

3.2. Substances for which there are Community workplace exposure limits (see par. 15.3.1.):

chemical name of substance/component CAS Nr. ES (EINECS) Nr. Index Nr. Registration Nr. Concentration /ratio in % classification(*dangerous symbol and R sentence*)

None

3.3. Other information: None

4 – FIRST AID MEASURES

4.1. Immediate medical attention:

Under normal condition (normal use) is not required.

4.2. General instructions:

In the case of health problems (if any irritation) or if in doubt contact your Doctor and give him information from this safety data sheet.

4.3. Inhalation:

4.3.1. Symptoms and effects:

Inhalation (breathing) is very improbable. In case of application by spraying and inhalation of aerosol can occur by susceptible persons a slight cough for a transitional period.

4.3.2. First aid:

Move the affected person to fresh air. Relax, do not smoke. Wash the face or rinse the mouth (or nose) with clean water.

4.4. Skin contact:

4.4.1. Symptoms, effects:

Locally (by long time exposure) can irritate sensitive skin.

4.4.2. First aid:

Put off the contaminated clothing. Wash the skin with warm water and soap. After washing treat the skin with suitable reparation cream.

4.5. Eye contact:

4.5.1. Symptoms, effects:

Direct injection to the eye can for a temporary period irritate conjunctiva and cause tearing.

4.5.2. First aid:

Remove contact lenses (if easily possible), rinse with plenty of clean lukewarm water, if irritation persists, seek medical attention.

4.6. Case of eating:

4.6.1. Symptoms, effects:

By following application methods (according to application rules) there is minimal risk of eating. Specific symptoms are not known.

4.6.2. First aid:

Rinse the mouth and drink a glass of water (about 250ml). Do not evoke vomiting.

5 – FIRE FIGHTING MEASURES

5.1. Suitable extinguishing media:

Fire fighting is directed according to the nature of the fire in the near area. Product is non-flammable.

5.2. Unsuitable extinguishing media: NONE

5.3. Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

Fire will produce dense black smoke, can lead to formation of carbon monoxide and carbon dioxide.

5.4. Special protective equipment for fire-fighters: NONE

6 - ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions:

Avoid eye and skin contact. Use suitable personal protective equipment. If appropriate refer to headings 7 and 8.

6.2. Environmental precautions:

Keep away from drains, surface- and ground-water and soil.

6.3. Cleaning and disposal methods:

The leaked material/paste scrape off. Such a scraped off material then put in to the labelled containers and dispose- see par.13. Small quantity wipe off with duster or other absorbent material. Then wash this material or dispose.

7 – HANDLING AND STORAGE

7.1. Handling:

7.1.1. Precautions for safe handling:

Keep basic hygiene Follow basic health and safety rules. Avoid skin and eye contact. Avoid breathing of aerosol during application by spraying. Use personal protective equipment mentioned in heading 8. After work wash hand or eventually other body part.

7.1.2. Environmental precautions:

Avoid uncontrolled material escape. No special precautions by usual usage are needed.

7.1.3. Special requirements including forbidden or recommended features for handling with the substance/preparation.

NONE, KEEP instructions mentioned in this MSDS or in application rules.

7.2. Storage:

7.2.1. Conditions for safe storage:

Store preferably in original and unpacked containers with the lid up. Storing in clean indoor storage by temperature +5 to +25°C. Protect from direct sunlight and high temperatures. Do not get material frozen. Warranty 2 years in original unpacked containers. Once open, consume as soon as possible.

7.2.2. Quantity limit under storage conditions: NONE

7.2.3. Request for type of used material for packing:

No specific requirements

7.3. Specific usage:

NONE. Follow instructions on the label, in the leaflet or in the technical data sheet or in application rules.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure limits values:

8.1.1. Occupational exposure limit values:

Preparation contains substance for that is set following concentration limit in working environment according to administrative order No. 361/2007 coll.

(Permissible Exposure Limit= PEL, highest permissible concentration = NPK-P):

Chemical name CAS nr. Contain in % v mg.m⁻³ PEL NPK-P Not determined

8.1.1.1. Recommended methods for measuring substances in occupational environment: NONE.

8.1.2. The values of biological exposure tests (BET): NONE

8.1.2.1. Recommended procedures for determining biological exposure tests: NONE

8.1.3. Exposure scenarios: currently not determined

8.2. Exposure controls:

8.2.1. Collective protection measures and technical control:

During application adequate ventilate, use suitable personal protective equipment, do not eat, do not smoke. After work wash hands with lukewarm water and treat the skin with suitable reparation means.

8.2.2. Personal protective equipment:

8.2.2.1. *Respiratory protection: Not supposed during manipulation. During application by spraying use respirator filter against dust, eventually face shield (that protects also eyes, nose and mouth), otherwise is not needed ČSN EN 149 (83 2225) Personal protective equipment – respiratory protection. Filter masks for protection against dangerous dust particles.*

8.2.2.2. *Hand protection: Protective gloves – suitable for example from PVC, latex, (puncture resistant), not suitable: porous material, leather.*

ČSN EN 374-1 (83 2310): Protective gloves against chemicals and micro-organisms

The selection of the gloves do not only depends on the material from which they are produced, but also on quality, that can vary from manufacturer to manufacturer.

8.2.2.3. *Eye protection: Not supposed during manipulation. During application by spraying always use protective glasses or face shield. Protective glasses/face shield according to ČSN EN 166:2002 (83 2401)- Personal protective equipment for eye protection, basic provision.*

8.2.2.4. *Skin protection (protection the whole body): Use suitable protective work clothing (according to character of the work), use head cover (depends on the place of work)*

8.2.3. Environmental exposure control: No special requirements, keep away from drains and surface-water.

9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information:

State (at 20°C)/appearance paste

Colour white

Odour No odour /eventually very weak like acetum.

9.2. Important health, safety and environmental information:

pH (at 20°C)	not determined
Boiling point/boiling range	not determined
Flash point	not determined
Flammability	not determined
Explosive properties	none, product is not explosive.
Oxidising properties	none
Vapour pressure (at 20°C)	not determined
Relative density (at 20°C)	not determined
Water Solubility (at 20°C)	soluble
Partition coefficient:	n-octanol/water not determined
Viscosity (at 20°C)	not determined
Vapour density	not determined
Evaporation rate	not determined
Content of organic	solvents 0%

10 – STABILITY AND REACTIVITY

The preparation is stable when stored according to par. No.7 of this MSDS and there is no spontaneous decomposition.

10.1. Conditions to avoid: protect from frost

10.2. Materials to avoid: Strong acids, bases, oxidising and reducing agents.

10.3. Hazardous decomposition products:

None when common usage. Fire will produce dense black smoke; can lead to formation of carbon monoxide and carbon dioxide.

10.4. Other stability and reactivity requests: None.

11 – TOXICOLOGICAL INFORMATION

11.1. Toxicity of the substance preparation:

11.1.1. Acute toxicity:

11.1.1.1. *Preparation: There is no toxicological information available.*

11.1.1.2. *Components of the preparation: Substances contained in quantity above 1% are not acute toxic. There is no detailed toxicological information about components of the preparation available.*

11.1.2. Irritation (estimation /not tested):

Skin: Locally (by long time exposure) can irritate sensitive skin. Preparation is not classified as irritating.

Eye: Direct injection to the eye can for a temporary period irritate conjunctiva and cause tearing.

Preparation is not classified as irritating.

11.1.3. Sensitisation: not supposed /sensitizing substances are contained in under limit quantity.

11.1.4. Narcosis effect: None. Substances of the preparation contained in quantity above 1% do not have narcosis effect.

11.1.5. Subchronic – chronic toxicity of the substance / preparation: Not determined Components of the preparation do not have any proved chronic effect.

11.1.6. Carcinogenicity: for preparation not determined. Components of the preparation are not classified as carcinogenic.

11.1.7. Mutagenicity: for preparation not determined. Components of the preparation are not classified as mutagenic to humans.

11.1.8. Toxicity for reproduction: for preparation not determined. Components of the preparation are not classified as toxic for human reproduction.

11.1.9. Toxicokinetics, metabolism and distribution of the substance/preparation components:

The preparation was not tested, details are not known. The main ingredients are not absorbed through the skin. In case of accidental eaten the preparation will be partially faecal discharged.

11.2. Experience of human effect:

No human effects are expected by recommended use. In case of accidental eye contact can temporarily irritate. Locally, by long-time contact with none protected skin can slightly irritate sensitive skin

11.3. Other information – for example. Variance between dates of each substance and real effect

of the preparation (optional): The preparation is evaluated by conventional calculation methods according to Decree nr. 232/2004 subsequently amended.

12 – ECOLOGICAL INFORMATION

No information is available.

12.1. Ecotoxicity:

The preparation was not ecotoxicological tested. According to law valid in the Czech Republic components of the preparation are not classified as dangerous for living environment except the mixture of the isothaisol that is contained in very under limited quantity – under 0,0015%)

12.1.1. Acute toxicity of:

12.1.1.1. *Preparation for aquatic organisms: not determined.*

12.1.1.2. *Components of the preparation for aquatic organisms: dates are not available*

12.1.2. Chronic toxicity of:

12.1.2.1. *Preparation for aquatic organisms: note determined/ not supposed*

12.1.2.2. *Components for aquatic organisms: not determined*

12.1.3. Toxicity for other organisms: note determined/not supposed

12.2. Mobility:

Not tested/note determined. Preparation is paste, unexpected leak of huge quantity is not supposed

12.3. Persistence and degradability:

For preparation not determined

12.4. Bioaccumulative potential:

note determined/ accumulation of preparation in biota is not supposed.

12.5. Results of PBT assessment:

Have not been made. It is not supposed that preparation would contain PBT substances in quantity more than 0, 1%

12.6. Other adverse effects:

Dates are not available

13 – DISPOSAL CONSIDERATIONS

13.1. Possible risk:

Not known/ are not supposed.

13.1.1. Methods of substance/preparation disposal: Follow the Act.no185/2001 Coll. On waste and amending certain laws, it's implementing regulation. Waste disposing is possible on the secured waste dump or in an incineration facility for these wastes. More information can be obtained from Environmental Department offices.

13.1.2. Methods of disposal contaminated packing: Packing containers have to be absolutely empty and clean – then can be recycled. Unclean packing containers dispose as preparation itself.

13.2. Recommended classification of the waste according to Public Notice no. 381/2001 subsequently amended.

13.2.1. Classification of the substance/preparation waste:

Waste code: 17 06 04, Waste category:

Name of the waste: Insulating material not mentioned under numbers: 17 06 01 and 17 06 03 *Note: classification of non cleaned substance/preparation residuals is in the competence of waste creator.*

13.2.2. Classification of the substance/preparation packing:

Waste code: 15 01 02, Waste category: O

Name of the waste: Plastic packaging

The valid legal regulations concerning "waste and disposing part" are mentioned in par. 15.

14 – TRANSPORT INFORMATION

The preparation is NOT dangerous goods under international and national transport regulations.

14.1. Safety precautions for transport, generally: Transport of the preparation should be in clean, covered and from the weather protected means of transport. Protect from frost and direct sunlight. Transport in positions with the lid up

14.2. Information about transport classification:

14.2.1. Sea transport (IMDG): no special requests

UN number: --

Class: none

Packing group: ---

Proper shipping name: ---

Marine pollutant: none

14.2.2. Road and railway transport: no special requests

UN number: --

Class: none

Packing group: ---

Proper shipping name: ---

Marine pollutant: none

14.2.3. Air transport (ICAO/IATA): no special requests

UN number:

Class: none

Packing group: ---

Proper shipping name: ---

Marine pollutant: none

15 - REGULATORY INFORMATION, LABELING

15.1. Chemical Safety Assessment of the substance/preparation: has not been improved

15.2. Information shown on the label:

15.2.1. Classification and labelling the substance/preparation:

Preparation is not classified according to Directives 67/548/EEC and 1999/45 EEC as dangerous, in the Czech Republic according to the law 356/2003Sb. The law on chemical substances and chemical preparations and laws subsequently amended.

15.2.2. Hazard symbols/letter signs: none/ optional

15.2.3. Chemical name of dangerous substance or substances: none/optional

15.2.4. Standard sentence/ sentences marking specific risk (R-sentences):
none/ optional

15.2.5. Standard rules for safe manipulation (S-sentences):
optional, only recommended:

S 2 Keep out of the reach of children

S37 Wear suitable gloves

15.2.6. Weight or volume according to § 20 par. 5 letter g the law 356/2003 subsequently amended, in case that the preparation is aimed for sale to consumers: 3, 5, 12, 30 litre

15.2.7. Classification, labelling and packaging of the substances and mixtures: according to regulation (EC) No 1278/2008 of the European Parliament and of the Council, required by 1st June 2015. Mixture according this regulation is not dangerous and there no need of specific labelling.

15.3. Legislation relating to the preparation:

15.3.1. The most important legislation and restriction EC relating to this MSDS:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, creation of European Chemical Agency, amending regulation 1999/45/EC 1488/94 Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (= REACH), as amended Regulation of the European Parliament and Council Regulation (EC). 1272/2008, on classification, labelling and packaging substances and mixtures, and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC). 1907/2006 (European version of the GHS), the section relating to the classification, packaging and labelling enter into force as of January 12, 2010, and mixtures from June 1, 2015 Commission Regulation (EC) 440/2008 laying down test methods in accordance with Regulation European Parliament and Council Regulation (EC). 1907/2006 concerning the Registration, Evaluation, Authorisation and Chemicals Commission Directive 91/322/EEC, on establishing indicative limit values by implementing the Directive 80/1107/EEC Council on the protection of workers from risks related to exposure to chemical, physical and biological agents at work.

Council Directive 98/24/EC on the protection of workers from risks related to chemical agents at work (fourteenth individual Directive within the meaning of 16 l. Paragraph 1 of Directive 89/391/EEC)

Commission Directive 2000/39/EC, establishing a first list of indicative limit values occupational exposure to the implementation of Council Directive 98/24/EC on safety and health workers from risks related to chemical agents at work, as Commission Directive 2006/15/EC

15.3.2. The most important regulation for the protection of health related to chemical substances and preparations, which the Czech law transferred the relevant EU directives related to chemical substances and preparations related to the investigation substance/preparation:

The law no. 356/2003 on chemical substances and chemical preparations and laws subsequently amended. Decree 232/2004 Coll. implementing some provisions of the Act on Chemical Substances and Chemical Preparations and on Amendments to some Acts concerning the classification, packaging and labelling of dangerous chemical substances and chemical preparations

15.3.3. Medical and health regulation concerning to substance/preparation:

Act . 258/2000, according to public health protection subsequently amended.

Decree no . 6/2003 Coll. laying down the health levels of chemical, physical and biological characteristics for indoor residential rooms of some buildings.

Decree No. 432/2003 Coll., stipulating requirements for placing types of work into categories, biological exposure test's limit values, conditions for taking off the biological material for the purpose of biological exposure tests and terms of reports of work with earth flax and biological agents, Act No. 20/1966 Coll., on Care of Peoples Health, as amended

Act No. 262/2006 Labour code, as amended Act No. 309/2006 Coll., stipulating further requirements for health and safety at work in labour relations and concerning occupational health and safety protection in activities or services provided outside labour relations (Act on Further Requirements on Occupational Health and Safety).

Government Regulation 361/2007 Coll, determining conditions for occupational health protection

Government Regulation 495/2001 Coll., which determines the extent of and more detailed conditions for providing personal protective work instruments, washing aids, cleaning aids and disinfectants.

Government Regulation 21/2003 Coll, stipulating personal protective equipment

Government Regulation No 101/2005 Coll,, on further requirements on workplace and working environment.

Act No. 251/2005 Coll., on labour inspection, as amended

15.3.4. The most important prescriptions on environment protection concerning chemical substances and preparations:

Act No. 185/2001 Coll., on waste and on amendment to some other laws, as amended.

Decree No. 376/2001 Coll., on evaluation of hazardous properties of waste, as amended.

Decree No 381/2001 Coll, Waste Catalogue, as amended

Decree No 383/2001 Coll., laying down essential rules for waste management, as amended

Act no. 477/2001 Coll., on Packaging and amendment of certain other acts, as amended

Act no 254/2001 Coll., Water act and amendment of certain other acts, as amended

Act no. 86/2002 Coll., on air protection and on amendments on some laws (Act on air protection)

15.3.5. Fire prescriptions concerning substance/protection:

Act 133/1985 Coll, on fire protection, as amended

15.3.6. The most important prescriptions concerning the preparation:

Decree No. 64/1987 Coll. on European treaty on international road transport of dangerous items (ADR), as amended later, respectively communication of the Ministry of Foreign Affairs 14/2007 Coll. of International Treaties which amends communication of the Ministry of Foreign Affairs 159/1997Coll, 186/1998 Coll., 54/1999Coll., Collection of International Treaties 93/2000, 6/2002, 65/2003, 77/2004, 33/2005, establishing the acceptance and complementary "Annex A - General

Provisions relating to dangerous substances and articles "and" Annex B - Provisions on Road Means of transport and the " European treaty on international road transport of dangerous items (ADR).

Communication of the Ministry of Foreign Affairs no 8/1985 Coll., on Convention concerning International Carriage by Rail (COTIF) as amended, respectively 19/2007 Coll.of International Treaties which amends Coll: 61/1991 , 251/1991, 29/1998 Coll., 60/1999, Collection of International Treaties: 9/2002,46/2003, 8/2004. Collection of International Treaties 34/2005 amending changes of Convention concerning International Carriage by Rail (COTIF),accepted in Bern, 9th May 1980, declared under Coll. 8/1985, changed by protocol in 1990, declared under Coll., 274/1996 and protocol from 1999 declared under Collection of International Treaties 49/2006.

Act No 49/1997 Coll., on civil aviation, subsequently amended

Act No 61/2000 Coll., on Maritime Navigation, subsequently amended

16 – OTHER INFORMATION

16.1. Full text R-SENTECES components of the admixture mentioned in par. 2 and 3:

None

16.2. Instruction for training:

Special training is not needed, application thickness is 0,8 - 1 mm.

Application by coating, with roller or by spraying (after dilution)

16.3. Restriction for usage:

The user is responsible for keeping all needed restrictions for health and environment protection, Application rules are mentioned in separate document.

16.4. Other information: None.

16.5. Resources used for this MSDS:

For elaboration of this document were used MSDS producers of components of the preparation.

Toxicological database CO v OPVZ (former CPL) SZ², mainly: ChemKnowledge^R

System from MICROMEDEX^R. Contains: TOMES Plus^R System (Toxicology, Occupational

Medicine and Environmental Science) and other. Then: CCINFO (2004), OSH Plus -database

EU , database ECB (European Chemicals Bureau), database MERCK (2007) and database of the Ministry of the Environment 2004, containing EINECS, ELINCS a NLP.

16.6. New or changed information (compared to former version of MSDS):

Change of the company name according to current certificate of incorporation.