

BOSTIK HM 4231
Supersedes Date: 24-Aug-2016

Revision Date 11-Apr-2018
Revision Number 2

This Safety Data Sheet is prepared voluntarily: it is not required according to Article 31 of Regulation (EC) No 1907/2006

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

1.1. Product Identifier

Product Name	BOSTIK HM 4231
Pure substance/mixture	Substance
CAS No	68139-70-8
Synonyms	Long chain alkyl polyamide

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

Recommended use	Hot-melt adhesives.
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Company Name

Bostik SA
Immeuble "Le Jade"
253 Avenue du President Wilson
93211 La Plaine Saint Denis
France
Tel: +33 (0)1 55 99 90 00
Fax: +33 (0)1 55 99 90 01

E-mail address SDS.box-EU@bostik.com

1.4. Emergency telephone number

Emergency Telephone No information available

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

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

Not classified

2.2. Label Elements

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

Not classified

Signal Word

No signal word

2.3. Other Hazards

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General Hazards

Contact with product at elevated temperatures can result in thermal burns.

PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	REACH Registration Number
Fatty acids, C18-unsaturated, dimers, polymers with azelaic acid, ethylenediamine and piperazine	-	68139-70-8	80 - 100	^		Exempt(P)

Within the present knowledge of the supplier, this product does not contain any ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

3.2. Mixtures

Not applicable

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Skin Contact	Wash skin with soap and water. In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. Removal of solidified molten material from skin requires medical assistance. Consult a doctor if necessary.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids.
Ingestion	Seek medical advice immediately. Do not induce vomiting without medical advice.

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

Symptoms	None known.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

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Suitable Extinguishing Media

In case of fire: Use CO₂, dry chemical, or foam to extinguish.

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire

5.2. Special hazards arising from the substance or mixture

Avoid dusting when handling and avoid all possible sources of ignition (spark or flame). This material can accumulate static charge by flow or agitation and can be ignited by static discharge.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions

Ensure adequate ventilation, especially in confined areas.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Keep out of drains, sewers, ditches and waterways.

6.3. Methods and material for containment and cleaning up

Methods for Containment

Molten . Cover with dry sand/earth.

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Use personal protection equipment. **Molten** . Where possible allow molten material to solidify naturally. **Solid**: . Avoid creating dust.

Prevention of secondary hazards

See Section 8 for information on appropriate personal protective equipment. See section 13 for more information. See section 15 for more information.

6.4. Reference to other sections

Reference to other sections

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
Section 13: DISPOSAL CONSIDERATIONS

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Use adequate ventilation and/or engineering controls in high temperature processing to prevent exposure to vapours. After contact with skin, wash immediately with plenty of water and soap. This material can accumulate static charge by flow or agitation and can be ignited by static discharge. Avoid dusting when handling and avoid all possible sources of ignition (spark or flame).

General Hygiene Considerations

Facilities for quickly drenching the body should be provided within the immediate work area for emergency use where there is a possibility of exposure.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

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Store away from incompatible materials.

7.3. Specific end use(s)

Other Information

Since empty containers retain product residue, follow label warnings even after container is emptied. Keep product and empty container away from heat and sources of ignition.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection	Molten . Wear protective eye glasses for protection against liquid splashes.
Hand Protection	Heat resistant gloves are recommended when handling molten materials.
Skin and Body Protection	Suitable protective clothing.

Environmental Exposure Controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	Solid
Appearance	Granules
Colour	Amber
Odour	No information available
Odour Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	2.5 - 5	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash Point	> 200 °C / > 392 °F	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit	No information available	
Vapour Pressure	No information available	
Vapour Density	No information available	
Relative Density	No information available	
Water Solubility	No information available	
Solubility in Other Solvents	No information available	
Partition Coefficient	No information available	
Autoignition Temperature	No information available	
Decomposition Temperature	No information available	
Explosive Properties	No information available	
Explosive Limits	No information available	
Upper	No information available	

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Lower	No information available	
Oxidising Properties	No information available	
Kinematic Viscosity	No information available	
Dynamic Viscosity	2.5 - 5 Pa.s	@ 200 °C
9.2. Other information		
Softening Point	135 - 153 °C	
Molecular Weight	No information available	
Solvent content (%)	No information available	
Solid content (%)	100	
Density	1 g/cm ³	
Bulk Density	No data available	
VOC content (%)		

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

None under normal use conditions.

10.2. Chemical stability

Stable under normal conditions.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

10.3. Possibility of hazardous reactions

Possibility of Hazardous Reactions

None under normal processing.

10.4. Conditions to avoid

Do not add water or other volatile material to molten adhesive. Take precautionary measures against static discharges.

10.5. Incompatible materials

Incompatible with oxidising agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide (CO₂). Hydrocarbons.

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

No information or data specific to the product on this toxicological (health) effect is available.

Inhalation	Based on available data, the classification criteria are not met.
Eye contact	Based on available data, the classification criteria are not met.
Skin Contact	Based on available data, the classification criteria are not met.
Ingestion	Based on available data, the classification criteria are not met.
Sensitisation	No data available.

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

Skin Corrosion/Irritation	Not applicable.
Serious eye damage/eye irritation	Not applicable.
Sensitisation	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Carcinogenicity	Not applicable.
Reproductive Toxicity	No information available.
STOT - Single Exposure	No information available.
STOT - Repeated Exposure	No information available.
Aspiration hazard	No information available.

Numerical measures of toxicity

Acute Toxicity

Component Information

Toxicity Data	No information available
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Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity	No information available
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Component Information

Data obtained on the component(s) include

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

Partition coefficient	No information available
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12.4. Mobility in soil

Mobility in soil	No information available.
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12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

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No information available

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Improper disposal or reuse of this container may be dangerous and illegal.
European Waste Catalogue	08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

Section 14: TRANSPORT INFORMATION

ADR

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

IMDG

14.1 UN Number	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Marine Pollutant	Np
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN Number	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ICAO (air)

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

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Section 15: REGULATORY INFORMATION

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

European Union

Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

EU-REACH (1907/2006) - Candidate List of Substances of Very High Concern (SVHC) for Authorization in accordance with Article 59

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

EU-REACH (1907/2006) - Annex XIV - List of substances subject to Authorization

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Persistent Organic Pollutants

Not applicable

National Regulations

France

Germany

Ordinance on Industrial Safety and Health - Germany - BetrSichV

No flammable liquids in accordance with BetrSichV

Netherlands

List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands)

15.2. Chemical safety assessment

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

Europe - BE

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SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls and personal protection

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

*

Skin designation

PBT Persistent, Bioaccumulative, and Toxic (PBT) Chemicals

STOT (RE): Specific target organ toxicity - Repeated exposure

STOT (SE): Specific target organ toxicity - Single exposure

EWC: European Waste Catalogue

Key literature references and sources for data

Classification and labeling data calculated from data received from raw material suppliers

Prepared By Product Safety & Regulatory Affairs

Revision Date 11-Apr-2018

Indication of changes

Revision Note Not applicable.

Training Advice No information available

Further information No information available

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet