

Technical Data Sheet

GAH 305

DESCRIPTION

GAH 305 is a high-speed bag and carton closing hot-melt adhesive. Its main properties are its low viscosity and fast-setting speed.

The component ingredients of GAH 305 conform to F.D.A. Part 175.105.

USES

GAH 305 is designed for automatic carton closing and bag closing machines, but can also be applied via a hand-held gun.

SPECIFICATIONS

Viscosity (Brookfield 21/20/160°C)	:	700 ± 100 cPs
Softening point (Ring & Ball)	:	110 ± 5°C
Colour	:	Pale Yellow
Open Time	:	3 - 5 seconds

APPLICATION

Standard hot-melt application equipment are suitable for this adhesive. Our recommended application temperature settings are: 150°C in pot, 155°C in the hose and 160°C at the nozzle.

CLEANING

Clean-up of application equipment should be carried out using hot-melt cleaner GAH 500. If GAH 500 is used, the application equipment should be thoroughly flushed out with fresh adhesive before the next application.

PACKAGING

GAH 305 is supplied in a fast-melting medallion form, in 20kg woven polypropylene bags.

STORAGE

This product should be stored in a cool, dry area and must not be subjected to direct sunlight. GAH 305 has a shelf life of six months.

NOTE: *As different surfaces and application conditions affect adhesive properties, it is essential that full tests are conducted on the surfaces and at the conditions that are likely to apply during service.*

10/03/GAH305

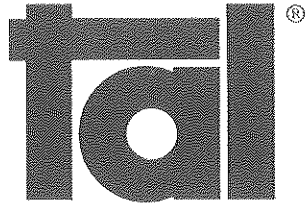
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MATERIAL SAFETY DATA SHEET (continued)	No: 3/98/GAH305 Date issued: 9.3.1998. Page: 2 of 4
3. Hazardous Identification: (continued)	
Eye effects - eyes:	None at room temperature. May be mild irritant if in immediate area of heating pot.
Health effects - skin:	No hazard when handled at room temperature.
Health effects - ingestion:	Digestive tract irritant. Seek medical attention immediately.
Health effects - inhalation:	None at room temperature. Slight irritation if fumes are inhaled directly on melting.
4. First-Aid Measures:	
Product in eye:	Purge eye with copious amounts of water. Seek medical help.
Product on skin:	If contact with hot product, do not attempt to remove spillage on skin. Cool skin with cold water immediately and seek medical attention.
Product ingested:	Seek medical help.
Product inhaled:	Remove to fresh air.
5. Fire Fighting Measures:	
Extinguishing media:	Foam, Powder, CO ² .
Special hazards:	Heat hazard on skin.
Protective clothing:	Protective leather gloves, apron and safety clothing.
6. Accidental release Measures:	
Personal precautions:	Protection required when handling hot material.
Environmental precautions:	Non-hazardous.
Small spills:	Allow to cool before handling. Dispose of according to local regulations.
Large spills:	As above.

MATERIAL SAFETY DATA SHEET (continued)	No: 3/98/GAH305 Date issued: 9.3.1998. Page: 3 of 4
7. Handling and Storage:	
Occupational exposure limits:	N/A
Engineering control measures:	Ensure application conditions are maintained according to manufacturer's instructions.
Personal protection - respiratory:	Use in well ventilated area.
Personal protection - hand:	Leather gloves.
Personal protection - eyes:	Safety goggles.
Personal protection - skin:	Safety shoes and overall.
Other protection:	
8. Physical and Chemical Properties:	
Appearance:	Yellow to light brown medallions
Odour:	Characteristic rosin odour.
pH:	N/A
Boiling Point:	N/A
Melting Point:	105 - 110°C
Flash Point:	N/A
Flammability:	Non-flammable but will support combustion.
Autoflammability:	N/A
Explosive Properties:	N/A
Oxidising Properties:	N/A

MATERIAL SAFETY DATA SHEET (continued)	No: 3/98/GAH305 Date issued: 9.3.1998. Page: 4 of 4
9. Physical and Chemical Properties: (continued)	
Vapour Pressure:	N/A
Density:	± 1.0
Solubility - water:	Not soluble
Solubility - solvent:	Soluble in aromatic solvents.
Solubility - co-efficient:	N/A
Neurotoxicity:	N/A
10. Stability and Reactivity:	
Conditions to avoid:	Overheating, charring product.
Incompatible materials:	Oxidising Agents.
Hazardous decomposition products:	CO ₂ , CO, Low molecular weight hydrocarbons.
11. Toxicological Information:	
Acute toxicity:	None.
Skin and eye contact:	N/A
Chronic toxicity:	N/A
Carcinogenicity:	N/A
Mutagenicity:	N/A
Reproductive hazards:	N/A
12. Ecological Information:	
Aquatic toxicity - fish:	None.
Aquatic toxicity - daphnia:	None.
Aquatic toxicity - algae:	None.
Biodegradability:	None.



Technical data sheet

GAH 306

DESCRIPTION

GAH 306 is a high quality, fast setting bag and corrugated box construction hot melt. GAH 306 has been specifically designed for fast systems, for both hand held and machine applications. Its main properties are its low viscosity and fast setting speed.

The component ingredients of GAH 306 conform to F.D.A. Part 175.105

SPECIFICATIONS

Colour	:	Light Yellow
Viscosity (Brookfield 27/20/160°C)	:	1 100 ± 200 cps
Softening point	:	110 ± 5°C
Setting Time	:	3 – 5 seconds

APPLICATION

Standard hot-melt application equipment such as Nordson and similar, for this adhesive. Our recommended application temperature is 155°C in the pot, 165°C in the hose, and 175°C in the nozzle.

CLEANING

Clean-up of application equipment should be carried out using hot-melt cleaner GAH 500. If GAH 500 is used, the application equipment should be thoroughly flushed out with fresh adhesive before the next application.

PACKAGING

GAH 306 is supplied in a fast-melting, uniform medallion form. GAH 306 is supplied in 20kg woven polypropylene bags.

STORAGE

GAH 306 should be stored in a cool, dry place and out of direct sunlight. GAH 306 has a shelf life of six months.

NOTE: *As different surfaces and application conditions affect adhesive properties, it is essential that full tests are conducted on the surfaces and at the conditions that are likely to apply during service.*

10/03/GAH306

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ANNEXURE 1

MATERIAL SAFETY DATA SHEET

No: 11/03/GAH 306
Date issued: 22.11.2003
Page: 1 of 5

COMPANY DETAILS

Name:	TAL (Pty) Limited	Emergency telephone no.:	(011) 970 2124
Address:	53 Rigger Road Spartan	Box:	P.O. Box 773 KEMPTON PARK 1620
Tel:	(011) 970-2124	Fax:	(011) 975-0513

1. Product and Company Identification:
(Page 1 may be used as an emergency safety sheet)

Trade name:	GAH 306	Chemical abstract no.:	
Chemical family:	Modified EVA	NIOSH no.:	
Chemical name:	Ethylene Vinyl Acetate Copolymer	Hazchem code:	
Synonyms:		UN no.:	

2. Composition:

Hazardous components:	N/A
EEC classification:	N/A
R Phrases:	N/A

3. Hazardous Identification:

Main hazard:	Heat hazard - used at very high temperature - will severely scald skin at useage temperature
Flammability:	Non-flammable but will support combustion
Chemical hazard:	N/A
Biological hazard:	N/A
Reproductive hazard:	N/A

MATERIAL SAFETY DATA SHEET (continued)	No: 11/03/GAH 306 Date issued: 22.11.2003 Page: 2 of 5
3. Hazardous Identification: (continued)	
Eye effects - eyes:	None at room temperature. May be mild irritant if in immediate area of heating pot.
Health effects - skin:	No hazard when handled at room temperature.
Health effects - inhalation:	None at room temperature. Slight irritation if fumes are inhaled directly on melting.
Carcinogenicity:	N/A
Mutagenicity:	N/A
Neurotoxicity:	N/A
4. First-Aid Measures:	
Product in eye:	Purge eye with copious amounts of water. Seek medical help.
Product on skin:	If contact with hot product, do not attempt to remove spillage on skin. Cool skin with cold water immediately and seek medical attention.
Product ingested:	Seek medical help.
Product inhaled:	Remove to fresh air.
5. Fire Fighting Measures:	
Extinguishing media:	Foam, Powder, CO ₂ .
Special hazards:	Heat hazard on skin.
Protective clothing:	Protective leather gloves, apron and safety clothing.
6. Accidental release Measures:	
Personal precautions:	Protection required when handling hot material.
Environmental precautions:	Non-hazardous.
Small spills:	Allow to cool before handling. Dispose of according to local regulations.
Large spills:	As above.

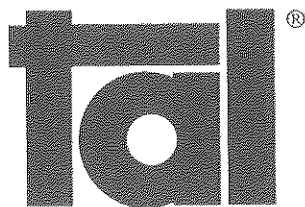
MATERIAL SAFETY DATA SHEET (continued)	No: 11/03/GAH 306 Date issued: 22.11.2003 Page: 3 of 5
7. Handling and Storage:	
Suitable material:	N/A
Handling/ storage precautions:	Wear protective gear.
8. Exposure Control/Personal Protection:	
Occupational exposure limits:	N/A
Engineering control measures:	Ensure application conditions are maintained to manufacturer's instructions.
Personal protection – respiratory:	Use in well-ventilated area.
Personal protection – hand:	Leather gloves
Personal protection – eyes:	Safety goggles
Personal protection – skin:	Safety shoes and overall
Other protection:	N/A
9. Physical and Chemical Properties:	
Appearance:	Yellow to light brown medallions
Odour:	Characteristic rosin odour
pH:	N/A
Boiling Point:	N/A
Softening Point:	110±5°C
Flash Point:	N/A
Flammability:	Non-flammable but will support combustion.
Autoflammability:	N/A
Explosive properties:	N/A
Oxidizing properties:	N/A

MATERIAL SAFETY DATA SHEET (continued)	No: 11/03/GAH 306 Date issued: 22.11.2003 Page: 4 of 5
9. Physical and Chemical Properties: (continue)	
Vapour Pressure:	N/A
Density:	± 1.0
Solubility - water:	None.
Solubility - solvent:	Soluble in aromatic solvents.
Solubility - co-efficient:	N/A
Neurotoxicity:	N/A
10. Stability and Reactivity:	
Conditions to avoid:	Overheating, charring product.
Incompatible materials:	Oxidising Agents.
Hazardous decomposition products:	CO ₂ , CO, Low molecular weight hydrocarbons.
11. Toxological Information:	
Acute toxicity:	None.
Skin and eye contact:	N/A
Chronic toxicity:	N/A
Carcinogenicity:	N/A
Mutagenicity:	N/A
Reproductive hazards:	N/A
12. Ecological Information:	
Aquatic toxicity - fish:	None.
Aquatic toxicity - daphnia:	None.
Aquatic toxicity - algae:	None.
Biodegradability:	None.



MATERIAL SAFETY DATA SHEET (continued)	No: 11/03/GAH 306 Date issued: 22.11.2003 Page: 5 of 5
12. Ecological Information: (continue)	
Bio-accumulation:	None
Mobility:	None
German wvk:	None
13. Disposal Considerations:	
Disposal methods:	With respect to local regulations, e.g. suitable landfill or dispose of to waste incineration plant.
Disposal of packaging:	- Plastic/paper bags – non-returnable
14. Transport Information:	
Product is classified as non- hazardous for transportation.	
15. Regulatory Information:	
Contact national regulatory authority.	
16. Other Information:	
The data presented here corresponds to the present state of our knowledge and experience and is intended to describe our product with respect to possible safety demands. We imply with this however no guarantee of properties or description of qualities.	

All information is given in good faith but without guarantee with respect to accuracy and no responsibility is accepted for errors or omissions or the consequences thereof.



Technical data sheet

GAH 451

DESCRIPTION

GAH 451 is a hot-melt palletising adhesive. It is recommended for the palletising of cardboard boxes. It is light brown in colour, has good hot tack and low viscosity.

SPECIFICATION

Viscosity (21/20/160°C)	:	300 ± 100 cPs
R & B Softening Point	:	75 ± 5°C
Colour	:	Light Brown

APPLICATION

GAH 451 is recommended for nozzle application. The recommended application temperature is 140°C.

Application temperatures may vary depending on application conditions.

CLEANING

Clean-up of application equipment should be carried out using hot-melt cleaner GAH 500. If GAH 500 is used, the application equipment should be thoroughly flushed out with fresh adhesive before the next application.

PACKAGING

GAH 451 is supplied in block form of 0.5kg, packed in 10kg boxes.

STORAGE

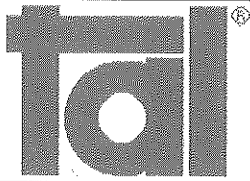
The product should be stored in a cool, dry area and must not be subjected to high temperatures. Under these conditions GAH 451 has a shelf life of six months.

NOTE: *As different surfaces and application conditions affect adhesive properties, it is essential that full tests are conducted on the surfaces and at the conditions that are likely to apply during service.*

07/05/GAH451

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Issued : 24.07.2009

MATERIAL SAFETY DATA SHEET TAL GAH 451

1. Product & Company Identification

Trade Name	GAH 451
Chemical Family	Modified SBR
Chemical Name	Styrene-Butadiene Rubber
Synonyms	N/A
Chemical Abstract No	N/A
NIOSH No	N/A
Hazchem Code	N/A
UN No	N/A

2. Composition / Information on Ingredients

Hazardous Components	N/A
EEC Classification	N/A
R Phrases	N/A

3. Hazardous Identification

Main Hazard	Heat hazard – used at very high temperature – will severely scald skin at usage temperature.
Flammability	Non flammable but will support combustion.
Chemical Hazard	N/A
Biological Hazard	N/A
Reproductive Hazard	N/A
Health Effects – eyes	Non at room temperature. May be mild irritant if in immediate area of heating pot.
Health Effects – skin	No hazard when handled at room temperature.
Health Effects – ingestion	N/A
Health Effects - inhalation	None at room temperature. Slight irritation if fumes are inhaled directly on melting.

4. First Aid Measures

Product in eyes	Purge eye with copious amounts of water. Seek medical help.
Product on skin	If contact with hot product, do not attempt to remove spillage on skin. Cool with cold water immediately and seek medical attention.
Product ingested	Seek medical help
Product inhaled	Remove to fresh air

5. Fire Fighting Measures

Extinguishing Media	Foam, Powder, CO ₂
Special Hazards	Heat hazard on skin
Protective Clothing	Protective leather gloves, apron and safety clothing.

6. Accidental Release Measures

Personal Precautions	Protection required when handling hot material
Environmental Precautions	Non-hazardous
Small Spills	Allow to cool before handling. Dispose of according to local regulations.
Large Spills	As above

7. Handling & Storage

Suitable materials	N/A
Handling/Storage precautions	Wear protective gear.

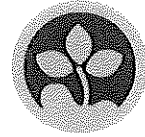
8. Exposure Controls / Personal Protection

Occupational Exposure Limits	N/A
Engineering Control Measures	Ensure application conditions are maintained according to manufacturer's instructions
Personal Protection – respiratory	Use in well ventilated area
Personal Protection – hand	Leather gloves
Personal Protection – eyes	Safety goggles
Personal Protection – skin	Safety shoes and overall
Other Protection	N/A

9. Physical and Chemical Properties	
Appearance	Light brown
Odour	Mild rosin odour
pH	N/A
Boiling Point	N/A
Melting Point	70 ± 5°C
Flash Point	N/A
Flammability	Non flammable but will support combustion.
Auto-flammability	N/A
Explosive Properties	N/A
Oxidising Properties	N/A
Vapour Pressure	N/A
Density	±1.0
Solubility – water	None
Solubility – solvent	Soluble in aromatic solvents.
Solubility – co-efficient	N/A
Neurotoxicity	N/A
10. Stability and Reactivity	
Conditions to Avoid	Overheating, charring product.
Incompatible Materials	Oxidising Agents
Hazardous Decomposition Products	CO ₂ , CO, Low molecular weight hydrocarbons.
11. Toxicological Information	
Acute Toxicity	None
Skin and Eye Contact	N/A
Chronic Toxicity	N/A
Carcinogenicity	N/A
Mutagenicity	N/A
Reproductive Hazards	N/A
12. Ecological Information	
Aquatic Toxicity – fish	None
Aquatic Toxicity – daphnia	None
Aquatic Toxicity – algae	None
Biodegradability	None
Bio-accumulation	None
Mobility	None
German wkg	None
13. Disposal Considerations	
Disposal Methods	With respect to local regulations, eg. Suitable landfill or dispose of to waste incineration plant
Disposal of Packaging	Carton / boxes – none returnable Silicone paper cups – non returnable
14. Transport Information	
	Product is classified as non-hazardous for transportation
15. Regulatory Information	
	The data presented here corresponds to the present state of our knowledge and experience and is intended to describe our product with respect to possible safety demands. We imply with this however no guarantee of properties or description of qualities.
16. Other Information	
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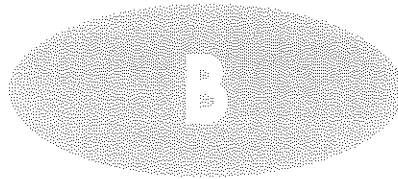
Economic Empowerment Rating Agency



Empowerdex Rating

Issued to:

NORCROS SA (PTY) LTD



LEVEL SEVEN CONTRIBUTOR

Company Information		Results	
Registration Number:	1952/000012/07	Procurement Recognition Level:	50.00%
VAT Number:	4790119095	Value Adding Enterprise:	No
Scorecard Used:	GENERIC	Expiry Date:	21 June 2012

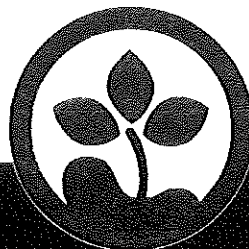
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Empowerdex

EMPOWERDEX NORTH (PTY) LTD

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DATE



C e r t i f i c a t e

SABS

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SPARTAN & OLIFANTSFONTEIN**

*has been assessed and found to
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**THE DESIGN, DEVELOPMENT, MANUFACTURE AND SUPPLY OF
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PRODUCTS**

NO PERMISSIBLE EXCLUSIONS

This certificate, including the schedule which forms an integral part thereof;

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- is subject to any condition or limitation contained therein;
- is valid subject to ongoing compliance with certification requirements; and
- bears the embossed SABS Commercial seal. In the absence of the seal, the certificate and the schedule shall be invalid.

Registration Number **LS 2234**

Effective Date **25 March 2009**

Expiry Date **24 March 2012**

Date of Original Registration **9 July 1998**

Director **Martin Kuscus**

