CERTIFICATE OF ANALYSIS

Product: **Carnauba Wax**

Batch: **4352208**

Best Before End: **February 2022**

Test	Method	Result	Specification
Melting Point	BP/Ph Eur 2.2.15	83.0°C	80 - 88°C
Acid Value	BP/Ph Eur 2.5.1	3.97	2 - 7 (mg KOH/g)
Ester Value	BP/Ph Eur 2.5.2	80.75	71 – 88 (mg KOH/g)
Saponification Value	BP/Ph Eur	84.72	78 - 95 (mg KOH/g)
Total Ash	BP/Ph Eur 2.4.16	0	0.25% max

The above batch meets the requirements of the current PHC 2486, British Pharmacopeia (BP), European Pharmacopeia (Ph Eur) & E903 specifications.

BiOrigins, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK
Tel: 01425 655555 Email: technical@madarcorporation.co.uk

31st October 2019

Prime Yellow Carnauba Wax T1 Ethics and Sustainability Statement

Carnauba Wax, as supplied by MADAR Corporation is obtained from the leaf of the Brazilian Copernicia Prunifera tree. The wax material is extracted during harvest season and further processed into flake form. This is performed in a sustainable manner, and the removal of the leaves does not cause any environmental/ecological damage, as the leaf stock naturally regenerates in between harvest periods.

We hereby declare that the suppliers within our supply chain fully comply with local, regional and national legislation regarding labour standards, wages, and working hours.

We have received confirmation from our suppliers that they ensure the following;

- No forced, bonded or child labour is used
- Safe working conditions are provided for all employees
- Freedom of association for all employees
- No discrimination or harassment is tolerated

Our Supplier confirms they avoid doing business with suppliers who do not fully comply with local, regional and national labour regulations. Our Supplier has a long-standing business relationship with their suppliers, and confirm that the supply chain is monitored to ensure all applicable legislation is respected, and that adequate transparency is provided in this regard.

Date created: 10/05/2017 *Revised: 06/01/2020 V3*

PRODUCT DATA SHEET
PRIME YELLOW CARNAUBA WAX T1

PRODUCT DESCRIPTION AND COMPOSITION	
Product Name	Prime Yellow Carnauba Wax T1
Product Code	WAXCARN
Shelf Life	36 months from date of manufacture
INCI	Copernicia Cerifera Cera
CAS	8015-86-9
Material Origin	Natural – Plant/Vegetable
Country of manufacture/origin	Brazil
Recommended Storage Conditions	≤35°C, dry, and out of direct sunlight. Remain sealed where possible
Vegetarian / Vegan friendly	Yes / Yes
Palm free	Yes
Halal	Yes
Kosher	Yes
Description	Exuded from the leaves of Copernicia Cerifera palm to reduce evaporation, Carnauba Wax originates exclusively from North East Brazil. A mixture of approximately 85 % esters, 13% free long chain fatty alcohols, and 2% free fatty acids and resins. A very hard, high melt point natural wax. Improves firmness, temperature stability, mould release and surface gloss.

REGULATORY APPROVALS	
Cosmetic & Personal Care	
Cosmetic products (EC 1223/2009)	Complies, based on existing knowledge of the raw materials used.
CMR (EC 1223/2009 article 15)	The substances classified as Carcinogenic, Mutagenic or toxic to Reproduction according to category 1A, 1B and 2 of EC 1272/2008 annex VI are not expected to be present* Specific data is not available
Nanomaterials (EC 1223/2009 article 16)	This product is not intentionally manufactured to a particle size of 1-100nm, nor are particles of this size intentionally introduced.
Non-animal testing (EC 1223/2009 article 18)	Animal testing has not been performed on this product by us, or by any third party. This product complies with current European legislation regarding the ban of animal testing of cosmetic products.
Cosmetic Allergens (2003/15/EC)	The 26 cosmetic allergens currently specified in current European cosmetic legislation are not expected to be present in concentrations exceeding 0.001% that would require listing on cosmetic labelling or packaging* Specific data is not available.
Mineral Hydrocarbons in cosmetic lip care products (COLIPA recommendation no.14)	Not Applicable
Food	
HACCP	Yes
Food Additive (EC 231/2012)	Complies with E903
FDA	Complies with FDA 184.1978
Gluten-free	Gluten is not expected to be present* Specific data is not available

Date created: 10/05/2017 *Revised: 06/01/2020 V3*

Pharmaceutical	
GMP certified	No
BP / Ph Eur	Complies
REACH	
REACH (EC 1907/2006)	Exempt from registration (Annex V)
SVHC (EC 1907/2006 Article 59)	The substances specified on the Candidate List of Substances of Very High Concern are not expected to be present in concentrations exceeding 0.1% w/w.* Specific data is not available.
California Proposition	
California Proposition 65 (The Safe Drinking Water and Toxic Enforcement Act of 1986)	The substances listed on the California Proposition 65 are not expected to be present* Specific data is not available

IMPURITIES	
Residual Solvents (ICH Q3C)	Class 1, 2 or 3 solvents are not used to manufacture this product, and as such are not expected to be present in concentrations exceeding those stated in the current ICH Q3C guideline* Specific data is not available.
VOC	Not expected to be present* Specific data is not available.
Heavy Metals	Neither Heavy Metals nor metal catalysts are used to manufacture this product, and as such are not expected to be present in concentrations exceeding unavoidable trace levels*
Conflict Minerals (Dodd-Frank wall street reform & consumer protection act)	Not expected to be present* Specific data is not available.

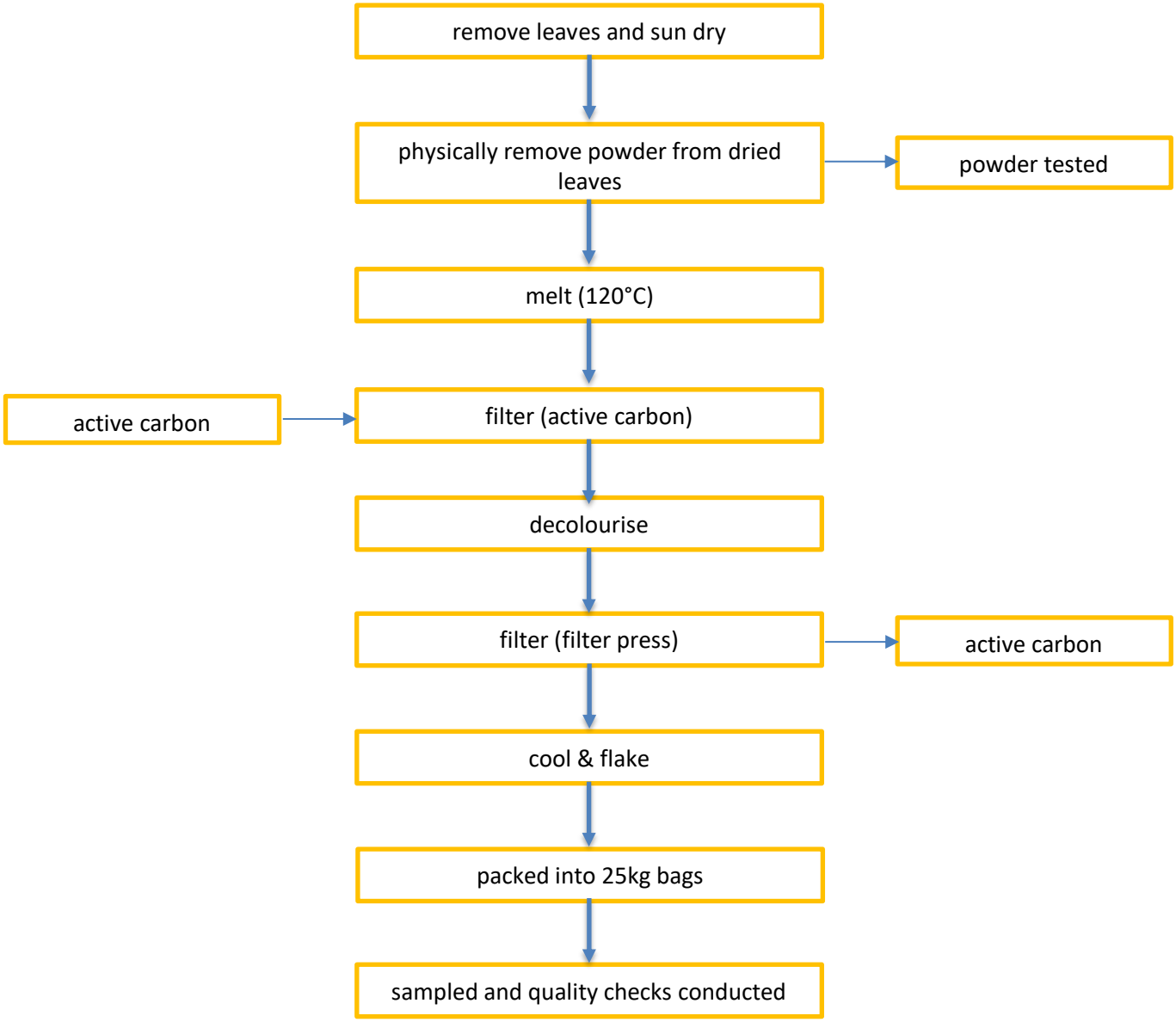
TOXICOLOGY	
BSE/TSE free	This product is free from materials of bovine, ovine and caprine origin, and does not come into contact with any such materials during manufacture or storage. As such this product can be declared free from Bovine Spongiform Encephalopathy (BSE) and Transmissible Spongiform Encephalopathy (TSE).
Non-GMO	This product does not contain any materials of Genetically Modified origin.
Irradiation	This product has not been irradiated.
Absence of pathogenic microorganisms	This product is processed using temperatures in excess of 100°C, and as a non-water containing wax, does not support bacterial or fungal growth.

*Based on existing knowledge of the raw material(s) used, the substances specified are not expected to occur naturally, nor are they intentionally introduced during manufacturing or further processing.

We hereby confirm that all the information contained in this document is understood to be accurate, to the best of our knowledge, at the time of issue.

Date created: 10/05/2017 *Revised: 06/01/2020 V3*

PRODUCTION OVERVIEW
PRIME YELLOW CARNAUBA WAX T1



All the information contained in this document is understood to be accurate, to the best of our knowledge, at the time of issue.

Registered in England No.82948
Established 1870

Date prepared: 07.05.15 *Revised: 26.07.2016 Rev5*

MATERIAL SAFETY DATA SHEET
CARNAUBA WAX

1.! IDENTIFICATION OF THE SUBSTANCE/PREPARATION & COMPANY

1.1 Product Identifier

Product name:	Carnauba Wax
REACH registered name:	Exempt Annex V
REACH registered No:	Exempt Annex V
CAS number:	8015-86-9
EC number:	232-399-4

1.2 Use of substance

Intended uses:	Chemical industry, cosmetic, pharmaceutical, material for further processing.
Uses advised against:	No information available

1.3 Supplier Details

Name:	MADAR Corporation Limited
Address:	19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA
Phone Number:	+44 1425 655555 (Monday - Friday 09.00-16.00)
Email:	sales@madarcorporation.co.uk
Approved Sellers:	Cosmetic Butters, Mystic Moments, New Directions, World of Moulds

1.4 Emergency Number

2.! HAZARDS IDENTIFICATION

2.1 Classification of the Substance of Mixture:
Does not contain any components which are hazardous according to CLP Regulation 1272/2008/EC

2.2 Label Elements:
Does not require a hazard warning label in accordance with CLP Regulation 1272/2008/EC.

2.3 Other Hazards:
PBT: This product is not identified as a PBT/ vPvB Substance according to REACH Annex XIII.
Hot liquid may cause thermal burns.

3. COMPOSITION/INFORMATION ON THE COMPOSITION

3.1 Substances

Substance Name	CAS-No	EC Number	REACH Reg No
Carnauba Wax	8015-86-9	232-399-4	Exempt Annex V

3.2 Mixtures

Not applicable

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General information: Remove contaminated/saturated clothing. In case of accident or illness seek medical advice immediately.

Inhalation: Remove the affected person to fresh air, keep warm and rest. If recovery is not rapid, seek medical advice.

Skin Contact: Wash the affected parts of the body with soap and water. No emergency measures are necessary but if adverse skin effects follow, seek medical advice.

Eye Contact: Flush eyes immediately with fresh water for at least 5 minutes while holding the eyelids open. No emergency measures are necessary but if adverse eye effects follow, seek medical advice.

Ingestion: Do not induce vomiting. No emergency measures are necessary but if adverse health effects follow or large amounts are swallowed, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: High concentration of vapours may induce: Headache, nausea, dizziness. Irritant effect to the respiratory tract.

Skin Contact: May cause slight irritation to the skin. Heated product may cause burns.

Eye Contact: May cause slight irritation to eyes.

Ingestion: May cause nausea.

4.3 Indication of any immediate medical attention and special treatment needed

In contact with or splashed by melted product, quickly cool area with water.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Foam, Dry Chemical Powder, Carbon Dioxide.
Unsuitable extinguishing media: Water.

5.2 Special hazards arising from the substance or mixture

Slight flammability hazard when exposed to heat or flame. During a fire, toxic gases (carbon monoxide, nitrous gases) may be generated by thermal decomposition or combustion.

5.3 Advice for firefighters

Only suitably trained personnel should attempt to tackle fires. Breathing apparatus and protective clothing should be worn. Do not remain in the immediate vicinity without respiratory protective equipment and protective clothing.

6. ACCIDENTAL RELEASE

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Wear suitable protective clothing. See section 8. Stop leak if safe to do so. Remove sources of ignition.

For emergency responders: Wear suitable protective clothing and breathing apparatus. See section 8. Stop leak if safe to do so. Remove sources of ignition

6.2 Environmental precautions

Water may be used to flush spills away from sources of ignition. Prevent spreading by damming. Do not allow the product to enter public drainage system or open water course. Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment: Stop leak if safe to do so. Use damming system to prevent spreading.

Cleaning up: Use sand or active clay to absorb spilled substance and remove to containers for disposal. When in liquid state, cool and allow to solidify.

6.4 Reference to other sections

See sections 8 and 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Recommendations: Handle in accordance with GMP and safety procedures. The molten product can cause severe burns. Use molten product in well ventilated areas. Use personal protective equipment as required.

General advice: Do not eat or drink in immediate vicinity. Wash hands after use. Remove any contaminated clothing before eating or drinking.

7.2 Conditions for safe storage including any incompatibilities

Keep material sealed, dry and out of direct sunlight. Avoid heat and ignition sources. Store in original containers or other high density polyethylene containers which are sealable and clearly labelled. Clean up spilled material immediately.

7.3 Specific end use(s)

No data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

TWA TLV (ACGIH):	No data available
DNEL:	No data available
PNEC:	No data available
PEL:	No data available
REL:	No data available

8.2 Exposure Controls

Appropriate engineering measures:	Facilities storing or utilising this material should be equipped with an eyewash facility.
Eye protection:	Wear appropriate eye protection with side shields (EN166).
Skin protection:	Use impervious gloves (EN374). PVC is suitable for casual contact. If direct contact for more than 2 hours then Neoprene or nitrile gloves recommended.
Respiratory protection:	Inhalation of the vapour, fumes or mists should be avoided by safe working practices and good ventilation.
Thermal Hazards:	Thermal hazards only applicable when material is heated. Use appropriate heat resistant gloves.
Environmental Exposure Controls:	See sections 6, 7, 12 and 13.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic chemical and physical properties

Appearance:	Liquid (at elevated temperature) Solid (at ambient temperature)
Odour:	Typical
Odour Threshold:	No data available
pH:	No data available
Melting point/Congealing point:	78-88°C
Initial boiling point/range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Explosion Limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available

Relative density (at 15°C):	No data available
Solubility in water:	Insoluble
Solubility in other solvents:	Ethyl Acetate and Xylene
Partition coefficient n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity (Kinematic, at 100°C):	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2 Other information
No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
Not reactive under normal storage and handling conditions (see section 7). May react with strong oxidising agents, especially at high temperatures.

10.2 Chemical stability
Stable under normal storage and handling conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions are expected to occur under normal storage and handling conditions.

10.4 Conditions to avoid
Extremes of temperature (preferably, store between 5 and 39°C). The product is combustible when heated >300°C.

10.5 Incompatible materials
May react with strong oxidants (e.g. chlorates, peroxides).

10.6 Hazardous decomposition products
Thermal decomposition or incomplete combustion may produce carbon monoxide, nitrous gases and irritating fumes.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.
Acute toxicity
Oral: No data available
Inhalation: No data available
Skin corrosion/irritation

Not classified as corrosive/irritant to skin - based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Can cause slight to moderate irritation.

Respiratory or skin sensitisation

Not classified as a respiratory or skin sensitizer - based on available data, the classification criteria are not met.

Germ cell mutagenicity

Not classified as a germ cell mutagenic or carcinogenic - based on available data, the classification criteria are not met.

Reproductive toxicity

Not classified as a Reproductive Toxicant - based on available data, the classification criteria are not met.

- **Specific target organ toxicity – single exposure**
  Not classified as a specific target organ toxicant (single exposure)
- **Specific target organ toxicity – repeated exposure**
  Not classified as a specific target organ toxicant (repeated exposure)

Aspiration hazard

Not classified as presenting an aspiration hazard - based on available data, the classification criteria are not met.

Likely routes of exposure

Skin/eye exposure – no adverse health effects expected.

Symptoms related to the physical, chemical and toxicological characteristics

- **If swallowed**
  Diarrhoea, gastrointestinal complaints
- **If inhaled**
  No data available
- **If on skin**
  No data available

Delayed and chronic effects from short and long-term exposure

No data available

Other information

No data available

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12. ECOLOGICAL INFORMATION

12.1 Toxicity

Not classified as hazardous to the aquatic environment according to 1272/2008/EC

12.2 Persistence and degradability

Insoluble in water – can be separated from water in suitable effluent treatment plants.

12.3 Bioaccumulation potential

No data available

12.4 Mobility in soil
Non-volatile and absorption into soil solid phase not expected.

12.5 Results of PBT & vPvB assessment
Not identified as a PBT/ vPvB Substance according to REACH Annex XIII.

12.6 Other adverse effects
No data available

13. DISPOSAL CONDITIONS

13.1 Waste treatment methods
Treat in accordance with EU directive 2008/98/EC. Transport to authorised waste location, or incinerate under controlled conditions (EU Directives 2000/76/EC and 1999/31/EC apply). Do not dispose to drains or sewage systems.

14. TRANSPORT INFORMATION

14.1 UN number
Not classified

14.2 UN Proper shipping name
Not Classified

14.3 Transport Hazard Class(es)
Not Classified

14.4 Packing Group
Not Classified

14.5 Environmental Hazards
None

14.6 Special Precautions for user
None

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code
Not classified

15. REGULATORY INFORMATION

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

EU Regulations: Regulation [EC] 1272/2008 including amendments
Regulation [EC] 1907/2006 including amendments (EC 2015/830)

15.2 Chemical Safety Assessment

The supplier has not performed a chemical safety assessment of this substance.

16. OTHER INFORMATION

Indication of changes: All sections revised according to Regulation [EC] No 1272/2008 [CLP] in preparation for the 1 June 2015 deadline.

V5 – additional product names added (section 1)

Abbreviations & Acronyms:

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS No:	Chemical Abstract Service number
CLP:	Classification Labelling and Packaging Regulation
DNEL:	Derived No Effect Level
EC:	European Commission
EC No:	European Chemical Number – EINECS – ELINCS
ECHA:	European Chemical Agency
EINECS:	European Inventory of Existing Commercial Chemical Substances
ELINCS:	European List of Notified Chemical Substances
ES:	Exposure Scenario
LD50:	Median Lethal Dose
LC50:	Median Lethal Concentration
PEL:	Permissible Exposure Limit
PNEC:	Predicted No Effect Level
REACH:	Registration, Evaluation, Authorisation & restriction of Chemicals
REL:	Recommended Exposure Limit
TLV:	Threshold Limit Value
TWA:	Time Weighted Average

Hazard Statements/Precautionary statements:
None

The information contained herein is for health and safety guidance only and does not constitute a product specification. It is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

PRODUCT SPECIFICATION

PRIME YELLOW CARNAUBA WAX T1

Appearance*	**(BP/Ph Eur)**	**Pale Yellow or Yellow flake.**
Solubility*	**(BP Ph Eur)**	**Practically insoluble in water and in ethanol (96 per cent), soluble on heating in Ethyl Acetate and in Xylene.**
Specific Gravity*	**(BP/Ph Eur 2.2.5)**	**~0.97**
Identification*	**(BP/Ph Eur 2.2.27)**	**Conforms to standard**
Melting Point	**(BP/Ph Eur 2.2.15)**	**80 – 88°C**
Acid Value	**(BP/Ph Eur 2.5.1)**	**2 – 7 (mg KOH/g)**
Ester Value	**(BP/Ph Eur 2.5.2)**	**71 – 88 (mg KOH/g)**
Saponification Value	**(BP/Ph Eur)**	**78 – 95 (mg KOH/g)**
Ash Content	**(BP/Ph Eur 2.4.16)**	**≤0.25%**
Unsaponifiable Matter*		**50 – 55%**
Heavy Metals*		**≤3 (mg/Kg) As, ≤1 (mg/Kg) Hg, ≤2 (mg/Kg) Pb**

This material meets the requirements of the British Pharmacopeia (BP), European Pharmacopeia (Ph Eur) and E903 specifications.

Indication only, not stated on Certificate of Analysis

n.b This document nullifies and replaces all previous documents referring to this product.

Issue No.13