

# Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.04.2024

Version number 2305 (replaces version 2208)

Revision: 18.04.2024

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

### 1.1 Product identifier

Trade name: **MANNOL 9692 Brake Cleaner 450ml**

Article number: MC9692

UFI: P3UU-X079-N00V-MF7G

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

No further relevant information available.

Application of the substance / the mixture Cleaning agent/ Cleaner

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

SCT-Vertriebs GmbH

Feldstrasse 154

22880 WEDEL

DEUTSCHLAND

+49 (0)4103 1211 0

info@sct-germany.de

Further information obtainable from: Product safety department.

### 1.4 Emergency telephone number:

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Aerosol 1

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS08 health hazard

Asp. Tox. 1

H304

May be fatal if swallowed and enters airways.



GHS09 environment

Aquatic Chronic 2 H411

Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2

H315

Causes skin irritation.

STOT SE 3

H336

May cause drowsiness or dizziness.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

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**Trade name: MANNOL 9692 Brake Cleaner 450ml**

(Contd. of page 1)

**Hazard pictograms**


GHS02 GHS07 GHS08 GHS09

**Signal word** Danger

**Hazard-determining components of labelling:**

2-methylpentane

**Hazard statements**

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P331 Do NOT induce vomiting.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards**
**Results of PBT and vPvB assessment**
**PBT:** Not applicable.

**vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

**3.2 Mixtures**
**Description:** Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**

CAS: 107-83-5 EINECS: 203-523-4	2-methylpentane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	40–50%
CAS: 106-97-8 EINECS: 203-448-7	butane, pure Flam. Gas 1A, H220; Press. Gas (Comp.), H280	19–24%
CAS: 74-98-6 EINECS: 200-827-9	propane Flam. Gas 1A, H220; Press. Gas (Comp.), H280	14–19%

(Contd. on page 3)



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**Trade name: MANNOL 9692 Brake Cleaner 450ml**

(Contd. of page 2)

CAS: 67-64-1 EINECS: 200-662-2	acetone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	1-5%
<b>· Not dangerous substances</b>		
CAS: 124-38-9 EINECS: 204-696-9	carbon dioxide	1-2%

**· Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

- 4.1 Description of first aid measures**
- General information:** Immediately remove any clothing soiled by the product.
- After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- After eye contact:** Rinse opened eye for several minutes under running water.
- After swallowing:** If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## SECTION 5: Firefighting measures

- 5.1 Extinguishing media**
- Suitable extinguishing agents:**  
CO2. Do not use water.  
Use fire extinguishing methods suitable to surrounding conditions.  
Foam  
Fire-extinguishing powder  
Sand
- For safety reasons unsuitable extinguishing agents:** Water
- 5.2 Special hazards arising from the substance or mixture**  
No further relevant information available.
- 5.3 Advice for firefighters**
- Protective equipment:** No special measures required.
- Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Particular danger of slipping on leaked/spilled product.  
Wear protective clothing.
- 6.2 Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.
- 6.4 Reference to other sections**  
See Section 7 for information on safe handling.

(Contd. on page 4)



## Safety data sheet

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Printing date 18.04.2024

Version number 2305 (replaces version 2208)

Revision: 18.04.2024

Trade name: MANNOL 9692 Brake Cleaner 450ml

(Contd. of page 3)

See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**  
Do not spray onto a naked flame or any incandescent material.  
Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Ingredients with limit values that require monitoring at the workplace:

##### 107-83-5 2-methylpentane (50.0%)

OEL	Short-term value: 3600 mg/m <sup>3</sup> , 1000 ppm
	Long-term value: 1800 mg/m <sup>3</sup> , 500 ppm

##### 106-97-8 butane, pure (24.0%)

OEL	Short-term value: 1000 ppm
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##### 74-98-6 propane (19.0%)

OEL	Asphx
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##### 67-64-1 acetone (5.0%)

OEL	Long-term value: 1210 mg/m <sup>3</sup> , 500 ppm
	IOELV

##### 124-38-9 carbon dioxide (2.0%)

OEL	Long-term value: 9000 mg/m <sup>3</sup> , 5000 ppm
	IOELV

- **Additional information:** The lists valid during the making were used as basis.

#### 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

(Contd. on page 5)

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

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Version number 2305 (replaces version 2208)

Revision: 18.04.2024

**Trade name: MANNOL 9692 Brake Cleaner 450ml**

(Contd. of page 4)

- **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye/face protection** Not required.

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

· <b>Colour:</b>	Clear
· <b>Odour:</b>	Acetone-like
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Boiling point or initial boiling point and boiling range</b>	Not applicable, as aerosol.
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	1.7 Vol %
· <b>Upper:</b>	10.9 Vol %
· <b>Flash point:</b>	Not applicable, as aerosol.
· <b>Auto-ignition temperature:</b>	465 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	0.67 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

(Contd. on page 6)



## Safety data sheet

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Version number 2305 (replaces version 2208)

Revision: 18.04.2024

Trade name: MANNOL 9692 Brake Cleaner 450ml

(Contd. of page 5)

**· 9.2 Other information****· Appearance:****· Form:**

Aerosol

**· Important information on protection of health and environment, and on safety.****· Ignition temperature:**

Product is not selfigniting.

**· Explosive properties:**

Not determined.

**· Solvent content:****· Organic solvents:**

34–48 %

**· VOC (EC)**

74–98 %

**· Solids content:**

0.0 %

**· Change in condition****· Evaporation rate**

Not applicable.

**· Information with regard to physical hazard classes****· Explosives**

Void

**· Flammable gases**

Void

**· Aerosols**

Extremely flammable aerosol. Pressurised container: May burst if heated.

**· Oxidising gases**

Void

**· Gases under pressure**

Void

**· Flammable liquids**

Void

**· Flammable solids**

Void

**· Self-reactive substances and mixtures**

Void

**· Pyrophoric liquids**

Void

**· Pyrophoric solids**

Void

**· Self-heating substances and mixtures**

Void

**· Substances and mixtures, which emit flammable gases in contact with water**

Void

**· Oxidising liquids**

Void

**· Oxidising solids**

Void

**· Organic peroxides**

Void

**· Corrosive to metals**

Void

**· Desensitised explosives**

Void

## SECTION 10: Stability and reactivity

**· 10.1 Reactivity** No further relevant information available.**· 10.2 Chemical stability****· Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**· 10.3 Possibility of hazardous reactions** No dangerous reactions known.**· 10.4 Conditions to avoid** No further relevant information available.**· 10.5 Incompatible materials:** No further relevant information available.**· 10.6 Hazardous decomposition products:**

Carbon monoxide

Aldehyde

Poisonous gases/vapours

Carbon dioxide

(Contd. on page 7)

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.04.2024

Version number 2305 (replaces version 2208)

Revision: 18.04.2024

Trade name: MANNOL 9692 Brake Cleaner 450ml

(Contd. of page 6)

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

<b>106-97-8 butane, pure</b>		
Inhalative	LC50/4 h	658 mg/l (rat)
<b>67-64-1 acetone</b>		
Oral	LD50	5,800 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rabbit)

- **Skin corrosion/irritation**

Causes skin irritation.

- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard**  
May be fatal if swallowed and enters airways.

- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms

(Contd. on page 8)

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.04.2024

Version number 2305 (replaces version 2208)

Revision: 18.04.2024

**Trade name: MANNOL 9692 Brake Cleaner 450ml**

(Contd. of page 7)

### SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

HP3	Flammable
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP14	Ecotoxic

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

· **14.1 UN number or ID number**

· **ADR, IMDG, IATA** UN1950

· **14.2 UN proper shipping name**

· **ADR** 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS

· **IMDG** AEROSOLS (hexane (containing < 5 % n-hexane (203-777-6))), MARINE POLLUTANT

· **IATA** AEROSOLS, flammable

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class** 2.5F Gases.

· **Label** 2.1

· **IMDG**



· **Class** 2.1 Gases.

· **Label** 2.1

· **IATA**



· **Class** 2.1 Gases.

· **Label** 2.1

(Contd. on page 9)



## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.04.2024

Version number 2305 (replaces version 2208)

Revision: 18.04.2024

Trade name: MANNOL 9692 Brake Cleaner 450ml

(Contd. of page 8)

<ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	not regulated
<ul style="list-style-type: none"> <li>· <b>14.5 Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Special marking (ADR):</b></li> </ul>	Product contains environmentally hazardous substances: 2-methylpentane Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> <li>· <b>Hazard identification number (Kemler code): -</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Code</b></li>   <li>· <b>Segregation Code</b></li> </ul>	Warning: Gases. F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
<ul style="list-style-type: none"> <li>· <b>14.7 Maritime transport in bulk according to IMO instruments</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li>   <li>· <b>Transport category</b></li> <li>· <b>Tunnel restriction code</b></li> </ul>	1L Code: E0 Not permitted as Excepted Quantity 2 D
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	1L Code: E0 Not permitted as Excepted Quantity
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**  
P3a FLAMMABLE AEROSOLS  
E2 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t

(Contd. on page 10)



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according to Regulation (EC) No 1907/2006, Article 31

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Version number 2305 (replaces version 2208)

Revision: 18.04.2024

**Trade name: MANNOL 9692 Brake Cleaner 450ml**

(Contd. of page 9)

- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

- **REGULATION (EU) 2019/1148**

- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

67-64-1 | acetone

- **Regulation (EC) No 273/2004 on drug precursors**

67-64-1 | acetone

3

- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

67-64-1 | acetone

3

- **National regulations:**
- **Additional classification according to Decree on Hazardous Materials, Annex II:** Carcinogenic hazardous material group III (dangerous).
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### · Relevant phrases

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.
- EUH066 Repeated exposure may cause skin dryness or cracking.

- **Department issuing SDS:** Product safety department.

- **Date of previous version:** 08.05.2023

- **Version number of previous version:** 2208

### · Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Gas 1A: Flammable gases – Category 1A  
Aerosol 1: Aerosols – Category 1  
Press. Gas (Comp.): Gases under pressure – Compressed gas

(Contd. on page 11)



## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

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Version number 2305 (replaces version 2208)

Revision: 18.04.2024

**Trade name: MANNOL 9692 Brake Cleaner 450ml**

Flam. Liq. 2: Flammable liquids – Category 2  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
Asp. Tox. 1: Aspiration hazard – Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

**\* Data compared to the previous version altered.**

(Contd. of page 10)

-IE-