

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

PRODUCT NAME : D101 Electrical Parts Cleaner and Degreaser
USE : Cleaning Electrical Parts
PRODUCT TYPE : Aerosol Solvent Cleaner
CHEMICAL FAMILY : Organic solvent
SUPPLIER : Dunlop Adhesives (Thailand) Limited
ADDRESS : 700/242 Moo1 Bankao Sub-District, Panthong District Chonburi Province 20160
CONTACT NUMBERS : Tel : (038) 465 661-2, Fax : (038) 465 663

2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flammable aerosols	Category 1
Skin irritation	Category 2
Eye irritation	Category 2B
Acute Toxic	Category 2
Carcinogenicity	Category 1B

2.2 Label elements

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

Pictogram



Signal word

Danger

Hazard statement(s)

Extremely flammable aerosol.
 Causes skin irritation.
 Causes serious eye irritation.
 May cause cancer.

Precautionary statement(s)

May be fatal if swallowed and enters airways
 Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurised container: Do not pierce or burn, even after use. Avoid breathing vapours. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear eye/face protection. ,gloves.
IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Avoid release to the environment.

According to European Directive 67/548/EEC 1999/45/EC and their amendments.

Hazard symbol(s): Extremely flammable



R-phrase(s)

R 11	Highly flammable.
R 36/38	Irritating to eye and skin.
R 59	Dangerous for the ozone layer.
R 65	Harmful; May cause lung damage if swallowed.
R 67	Vapors may cause drowsiness and dizziness.

S-phrase(s)

S 16	Keep away from sources of ignition - No smoking
S 2	Keep out of the reach of children
S 46	If swallowed, seek medical advice immediately and show this container or label.
S 51	Use only in well-ventilated areas.
S 23	Do not breathe vapour

2.3 Other hazards

The mixture does not contain any substances classified as 'Substances of Very High Concern' (SVHC) by the

European Chemicals Agency (ECHA) under article 57 of REACH:

<http://echa.europa.eu/fr/candidate-list-table>

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006. Container under pressure.

3. Composition/Information on Ingredients

Identification	(EC) 1272/2008	67/548/EEC	% w/w
Chlorodifluoromethane INDEX: CAS: 75-45-6 EC: 200-871-9	GHS04, GHS07 Wng Gas Press, H280 Ozone 1 , H420	N;R59	15 - 25
N-Hexane CAS: 110-54-3 EC: 203-777-6	GHS02, GHS07, GHS08 Dgr Flam.liq , H225	F+ F+;R11 Xi;R36/38 R67 R65	35 - 45
Isopropyl Alcohol CAS: 67-63-0 EC: -	GHS02, GHS07 Dgr Flam.Liq.2 , H225 Eye Irrit. 2A , H319 STOT SE 3 , H336	F+;R11 R36 R67	35 - 45

4. First Aid Measures

4.1 Description of first aid measures

If inhaled

Move person into fresh air. Keep warm and at rest. If not breathing, give artificial respiration. Seek medical attention immediately, showing the packaging or label.

In case of skin contact

Remove contaminated clothing and wash the skin thoroughly with soap and water.

In the event of an allergic reaction, seek medical attention.

In case of eye contact

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

If swallowed

Rinse the mouth with water. Do not induce vomiting. Seek medical attention, showing the label.

4.2 Most important symptoms and effects, both acute and delayed

Dizziness. Drowsiness. Headache. Nausea. Vomiting. Skin and eye irritation. Repeated exposure may cause skin dryness or cracking

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Fire Fighting Measures

5.1 Suitable extinguishing media

Use water spray, carbon dioxide, foam, halon, multipurpose ABC powder, BC powder. or water with AFFF (Aqueous Film Forming Foam) additive

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the mixture

Flammable. A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke. Carbon monoxide (CO), Carbon dioxide (CO2) may be formed.

5.3 Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

6. Accidental Release Measure**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate danger area.

Avoid any contact with the skin and eyes.

Avoid inhaling the vapours.

6.2 Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal. Prevent any material from entering drains or waterways.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations.

6.3 Methods and materials for containment and cleaning up

Complete protective clothing including disposable half-mask aerosol filter, gloves and boots. Remove all ignition sources and ventilate the area. Clean preferably with a detergent, do not use solvents.

7. Handling and Storage**7.1. Precautions for safe handling**

Avoid inhaling the vapours. Avoid direct contact with the substance.

Ensure that there is adequate ventilation, especially in confined areas.

The mixture can become electro statically charged ,always earth during decanting operations.

Wear antistatic shoes and clothing and floors should be electrically conductive.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Do not use tools which may produce sparks. Do not smoke.

Fire prevention:

Handle in well-ventilated areas.

Vapors are heavier than air. They can spread along the ground and form mixtures that are explosive with air. Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Do not spray on a naked flame or any incandescent material.

Do not pierce or burn, even after use.

Prevent the accumulation of electrostatic charges with connections to earth

The mixture can become electrostatically charged: always earth during decanting operations.

Wear antistatic shoes and clothing and floors should be electrically conductive.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, spark and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorized personnel.



D101 Electrical Parts Cleaner and Degreaser

Safety Data Sheet

Rev 01,16 Jan 2019

Recommended equipment and procedures:

- For personal protection, see section 8.
- Observe precautions stated on label and also industrial safety regulations
- Do not breathe in aerosols.
- Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.
- Provide vapor extraction at the emission source and also general ventilation of the premises
- Packages which have been opened must be reclosed carefully and stored in an upright position
- Keep in original container. Do not pierce or burn, even after usage.
- Storage and handling instructions applicable to pressurized gases.

Prohibited equipment and procedures:

- No smoking, eating or drinking in areas where the mixture is used.
- Never open the packages under pressure
- Avoid high temperatures

7.2 Conditions for safe storage, including any incompatibilities

- Keep the container tightly closed in a dry, well-ventilated place.
- Keep away from all sources of ignition, heat and direct sunlight.
- Do not expose to temperatures exceeding 50 °C.
- Store in cool. Must only be kept in original packaging.
- Storage life: 24 months

7.3 Specific end use(s)

No data available

8. Exposure Controls/Personal Protection

8.1 Control parameters

Occupational exposure limits:

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010):

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
110-54-3	50 ppm	-	-	-	-
67-63-0	200 ppm	200 ppm	-	-	-

8.2. Exposure controls**Personal protective equipment****Eye/face protection**

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.

Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question: other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended:

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVA (Polyvinyl alcohol)

Recommended properties:

- Impervious gloves in accordance with standard EN374 Protective gloves.

Body Protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing:

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact. In the event of spraying, wear protective clothing against chemical risks and against sprayed liquid (type 4) in accordance with EN14605 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

Respiratory protection

Type of FFP mask:

Wear a disposable half-mask aerosol filter in accordance with standard EN149.

Category: - FFP1

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387: - A1 (Brown)

Particle filter according to standard EN143: - P1 (White)

Work / Hygienic Practices:

Promptly remove any clothing that becomes contaminated.

Wash at the end of each work shift and before eating, smoking and using the toilet.

No eating or drinking while working with this material.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Clear Liquid
pH	Not relevant.
Specific Gravity at 25 DegC	0.700 – 0.800
Water solubility	Insoluble.
%Solid (1hr,105 DegC)	Not relevant

9.2. Other information

No data available.

10. Stability and Reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.
Avoid: heating heat, humidity, accumulation of electrostatic charges. , flames and hot surfaces

10.5. Incompatible materials

Water, Strong oxidising agents

10.6. Hazardous decomposition products

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

11. Toxicological Information

11.1. Information on toxicological effects

Symptoms produced will include headaches, nausea, numbness, dizziness, fatigue, muscular asthenia, judgement disorder, giddiness, irritability and loss of consciousness.
Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.
Splashes in the eyes may cause irritation and reversible damage
Narcotic effects may occur, such as drowsiness, narcosis, decreased alertness, and loss of reflexes, lack of coordination or dizziness.

11.2 Substances

Acute toxicity

Components	Oral rat LD50	Dermal Rabbit LD50	Inhalation rat LC50
n-Hexane	25,000 mg/kg	25,000 mg/kg	-
Isopropyl Alcohol	5,045 mg/kg	12,870 mg/kg	73 ppm

Skin corrosion/irritation

Moderate skin irritation

Serious eye damage/eye irritation

Moderate eye irritation

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness

Aspiration hazard

May be fatal if swallowed and enters airways

11.3. Mixture

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

12. Ecological Information**12.1 Ecotoxicity****12.1.1. Substances**

Isopropyl Alcohol

Rat

LC50 > 73 mg/l 4 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

Not very mobile in soil. The product

is insoluble in water and will spread on the surface

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

German regulations concerning the classification of hazards for water (WGK):

WGK 2 (VwVwS vom 27/07/2005, KBws): Hazardous for water

13. Disposal Considerations**13.1. Waste treatment methods**

Do not pour into drains or waterways.

Waste:

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company. Do not contaminate the ground or water with waste; do not dispose of waste into the environment.

Soiled packaging:

Empty container completely. Keep label(s) on container. Give to a certified disposal contractor.

Codes of wastes (Decision 2001/573/EC, Directive 2006/12/EEC, Directive 94/31/EEC on hazardous waste) : 14 06 03 * other solvents and solvent mixtures

14. Transport Information

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2011 -IMDG 2010 - ICAO/IATA 2012).

14.1 UN number	1950
14.2 UN proper shipping name	UN1950=AEROSOLS, flammable
14.3 Transport hazard class(es)	2.1
14.4 Packing group	-
14.5 Environmental hazards	-
14.6 Special precautions for user	-
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Cod	No data available

ADR/RID	Class	Code 5F	Pack gr	Label	Ident.	LQ	Provis	EQ	Cat	Tunnel
	2		-	2.1	-		190 327 344 625	E0	2	D
IMDG	Class 2.1	2, Label SP63	Pack gr -	Label SP63	EMS F-D,S-U	LQ	Provis 63 190 277 327 959	EQ E0		
IATA	Class 2.1 2.1	2, Label - -	Pack gr - -	Passenger 203 Y203	Passage	Cargo 203 -	Cargo -	Note A145 A167 A145 A167 A802 A145 A167 A802	EQ E0 E0	

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

Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- Directive 2008/47/EC
- Regulation EC 1272/2008 modified by regulation EC 286/2011

Container information:

No data available.

Particular provisions:

No data available.

Labelling for detergents (EC Regulation No. 648/2004, 907/2006) :

- 30 % and more: aliphatic hydrocarbons

German regulations concerning the classification of hazards for water (WGK) :

WGK 2 (VwVwS vom 27/07/2005, KBws) : Hazardous for water.

15.2. Chemical safety assessment

No data available



16. Other Information

Created: October 19, 2015

This information contained herein is believed to be accurate but is not warranted to be so. Data are based on information furnished by the manufacturer of the product and manufacturers of the components of the product.

Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet.

Title for H, EUH and R indications mentioned in section 3:

- H 225 Highly flammable liquid and vapour.
- H 280 Contains gas under pressure; may explode if heated.
- H319 Cause serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H 420 Harms public health and the environment by destroying ozone in the upper atmosphere.
- R 11 Highly flammable.
- R 36/38 Irritating to eyes and skin.
- R 52/53 Harmful to aquatic organisms may cause long-term adverse effects in the aquatic environment.
- R 59 Dangerous for the ozone layer
- R 65 Harmful: may cause lung damage if swallowed.
- R 67 Vapour may cause drowsiness and dizziness.

Abbreviations:

- ADR: European agreement concerning the international carriage of dangerous goods by Road.
- IMDG: International Maritime Dangerous Goods.
- IATA: International Air Transport Association.
- ICAO: International Civil Aviation Organisation
- RID: Regulations concerning the International carriage of Dangerous goods by rail. WGK: Wassergefährdungsklasse (Water Hazard Class).