



SAFETY DATA SHEET

PLASTICLOR P52L

CHLORINATED PARAFFIN

Reg. No. 2003/017152/07

SDS 017/R10

02-10-2020

Safety Data Sheet (SDS) According to ISO/SANS 11014:2009/2010, UN Transport of Dangerous Goods, UN Globally Harmonized System of Classification & Labelling and EC Directive 1272/2008

SECTION 1. Identification – Chemical Product and Company

Trade Name	:	Plasticlor P52L
Chemical Name	:	Chlorinated paraffin
Proper Shipping Name	:	Environmentally hazardous substance, liquid N.O.S.
UN Number	:	3082
CAS Number	:	85535-85-9
GHS product identifier	:	Alkanes, C14-17, chloro chlorinated paraffins, C14-17
Chemical Family	:	Halogenated hydrocarbons
Chemical Formula	:	$C_xH_{(2x-y+2)}Cl_y$ where $x = 14-17$ and $y = 1-17$
Other means of identification	:	Clear, pale yellow mobile liquid, slight characteristic odour
Recommended use of the chemical	:	Plasticizer for flexible PVC compounds, other Polymers and to partially replace expensive flame-retardants
Restrictions on use	:	Not for use in products used in childrens' toys or food contact application
Supplier's details	:	NCP Chlorchem (Pty) Ltd
Address	:	Cnr. Allandale Road and Chloor Road Chloorkop, Gauteng South Africa:
Telephone No.	:	+27 (0) 11 976 2115
24hour Emergency phone number	:	+27 (0) 11 921 3333

SECTION 2. Hazards Identification

GHS classification of the substance: corrosive liquid, irritating to skin and eyes, and harmful to aquatic life

Hazard classes/Hazard categories	GHS Hazard Statement
Aquatic Acute 1	H400 Very toxic to aquatic life
Aquatic Chronic 1	H410 Very toxic to aquatic life with long lasting effects
Lactation	H362 May cause harm to breast-fed children
Skin Corrosion/Irritation Category 2	H315 Causes skin irritation
Eye Irritation Category 2	H319 Causes serious eye irritation
STOT SE 3	H335 May cause respiratory irritation

NB this Substance is included in the EU CoRAP – Community Rolling Action Plan

The most important adverse effects to know in emergency are –
GHS label elements, including precautionary Statements:



GHS 07 Skin & eye irritation health hazard - exclamation mark
GHS 09 Aquatic toxicity – dead tree and fish

Signal word: Warning

Hazard Statements - Skin and eye irritant - causes skin and serious eye irritation; May cause respiratory irritation; Very toxic to aquatic life with long lasting effects



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Precautionary statements:

P273 Avoid release to the environment
P391 Collect spillage
P280 Wear protective gloves
P270 do not eat, drink or smoke when using /handling this product
P302 + P352 if on skin wash off with plenty of water
P332 + P313 if skin irritation continues, get medical attention
P280 Wear eye / face protection
P305 + P351 + P338 if in eyes rinse cautiously
P362 + P364 take off contaminated clothing and wash before reuse
P261 + P271 avoid breathing mist, wear eye and face protection and use in well ventilated area
P304 & P340 if mist inhaled and breathing difficulty – remove person to fresh air and get medical attention
P301 if swallowed and feel unwell, get medical attention
P263 Avoid contact during pregnancy and while nursing

Response:

Refer Sections 5, 6 and 8

Storage:

Refer Section 7

Special Labelling requirements – refer Section 14 for transport labels

SECTION 3. Composition/information on ingredients

Chemical identity : Mixture
Other means of identity : Clear, pale yellow mobile liquid, slight characteristic odour
Common name, synonyms, etc : Chlorinated Paraffin (C14-17), Chloroalkanes,
Medium-chain chlorinated paraffin, C14-17
CAS number : 85535-85-9
EC number : 287-477-0
IUPAC name : Alkanes C14-17, chlorinated paraffin C14-17
Stabilizing additives : epoxidized Soya Bean oil at concentration of <1% by weight.

Ingredient name	UN Number	CAS number	%	EC List number
Alkanes, C14-17, medium chain chlorinated paraffins, C14-17	3082	85535-85-9	100	287-477-0

Product description C14-C17 Chlorinated hydrocarbons, (containing less than 1% C10-C13).

Chlorination content: 52%

Section 4. First Aid Measures

Product in eye – can cause serious eye irritation

Immediately flush eyes thoroughly for at least 10 minutes with running water. Hold eyelids open during flushing. If irritation persists, repeat flushing and obtain medical attention immediately.

Product on skin – can cause skin irritation

Remove contaminated clothing. Wash affected areas with soap and water. If irritation persists, obtain medical advice immediately.

Wash contaminated clothing before reuse.

Product ingested - Do not induce vomiting. Drink water or milk if conscious. Never give anything by mouth if victim is rapidly losing consciousness, or if unconscious or convulsing. Obtain medical assistance immediately.



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Product inhaled – may cause respiratory irritation

Move victim to fresh air. Give artificial respiration only if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing and no pulse. Obtain medical advice immediately.

Section 5. Fire Fighting Measures – non flammable

Product does not burn - but if heated to >70° for prolonged periods or >200° will decompose with emission of hydrogen chloride gas

Fire and explosion hazard Slight fire hazard.

Suitable Extinguishing Media Use regular dry chemical, carbon dioxide, water, and regular foam. For large fires use regular foam or flood with fine water spray.

Special hazards During a fire in which this material is involved, hydrogen chloride (HCl) may be liberated. Avoid inhalation of material, stay upwind and keep out of low areas.

Protective clothing - Wear full protective clothing and self-contained, positive breathing apparatus for large fires suitable for Hydrogen chloride fumes.

Section 6. Accidental Release Measures

Personal precautions

Restrict access to the area until completion of the clean-up. Ensure clean-up is conducted by trained personnel only. Wear safety goggles or face shield, protective clothing, gloves and boots preferably made of butyl nitrile

Environmental precautions May be harmful to aquatic life, do not allow to enter surface waters or sewers. No quantitative data is available on low level aquatic toxicity.

Clean-up methods

Small spills

Contain the spill. Mop up or soak with inert absorbent such as sand or clay for disposal. Wash spill area with large volumes of water, prevent from running into the environment, especially waterways. Dispose of residue in accordance with local or state regulations.

Large spills

Contain by diking with soil or other non-combustible sorbent material and pump into approved waste containers or absorb with non-combustible absorbent material. Collect product and contaminated soil for recovery or disposal. Wash spill area with large volumes of water and allow to drain into a waste treatment system. Comply with all local regulations on spill reporting, handling and disposal of waste.

GHS Disposal Precautionary Statement - P501 dispose of product and containers in accordance with National and / or regional Regulations refer SA National Environmental Management Waste Act - NEM: WA, it's Regulations and local by-laws. This informs permitted Waste Facilities and Service providers see the South African Waste Information Centre sawic.environment.gov.za

SECTION 7. Handling and Storage

Precautions for safe handling – avoid contact with skin and eyes. wear appropriate personal protective equipment – see Section 8.

Eating, drinking and smoking shall be prohibited in areas where chemicals are handled, stored or processed. Workers must wash hands before eating, drinking or smoking to remove any chemicals that could be ingested or inhaled. Remove contaminated clothing and protective equipment before entering eating areas

Storage requirements: Store only in original container, in a cool place out of direct sunlight and avoid sources of potential contamination. Keep away from heat, sparks and flames. Use only with adequate ventilation.



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Suitable materials

Store in lined mild steel containers, Stainless steel, HDPE – High Density Polyethylene, or reinforced UP Resin

Unsuitable materials

PVC – Poly Vinyl Chloride, PP – Polypropylene, PTFE - Polytetrafluoroethylene, most rubbers

Handling/storage precautions

Store in a cool well-ventilated area. Keep containers closed.

Avoid breathing vapour, use only with adequate ventilation.

Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Wash contaminated clothing thoroughly before re-use.

SECTION 8. Exposure Controls/Personal Protection

Control parameters e.g. occupational exposure limit values or biological limit values

Ingredient name	%	Exposure limits – OHS Act South Africa 1993
Alkanes, C14-17, chlorinated paraffins, C14-17	100	Not listed

ACGIH TLV(TWA) No data available
TLV(STEL) No data available

Engineering control measures: Local ventilation should be available if mists are produced.

Personal protection – respiratory: Unlikely route of exposure, but if mists are encountered could be irritating to the respiratory tract, use NIOSH approved respirator.

Personal protection – hand: listed skin irritant thus avoid contact with this chemical. Wear rubber gloves.

Personal protection – eye: listed eye irritant thus wear safety glasses with side shields at all times. Contact lenses should not be worn.

Personal protection – skin: listed skin irritant thus wear overalls, safety shoes/boots and apron.

Personal protection – ingestion: Restrict access to unauthorized persons. Wash hands after contact.

Other protection - A safety shower and eye wash facility should be nearby and ready for use.

SECTION 9. Physical and Chemical Properties

Appearance	Clear, pale yellow mobile liquid.
Odour	Slight characteristic odour.
Odour Threshold	Not known
Melting point/ Freezing point	-49 to 32 F (-45 to 0°C)
Initial boiling point/range	>395F (>200°C) @103100Pa Decomposes with the release of HCl
Flammability	UEL: Not applicable LEL: Not applicable
Lower / upper explosive limit	Not applicable
Flash point	> 210°C.
Auto ignition temperature	No data available.
Decomposition temperature	No data available
pH	Not applicable.
Viscosity	0.55 – 2.35 Pa-s at 25°C.
Partition coefficient, n-octanol	No data available
Vapour pressure	(2.7 x 10 ⁻⁴) KPa at 20°C
Specific gravity	1,23 - 1,28 at 25°C.
Solubility - water	Practically insoluble in water.

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Solubility - solvent Soluble in many organic solvents. Slightly soluble in alcohol; Miscible with benzene, chloroform, ether, carbon tetrachloride; Insoluble in glycerine; Soluble in aromatic hydrocarbons, aliphatic hydrocarbons, ketones, esters, vegetable and animal oils

SECTION 10. Stability and Reactivity

Reactivity and Chemical Stability: Non- reactive and stable under normal conditions of storage and handling. Non-flammable under normal handling and storage conditions.

Hazardous polymerization Will not occur.

Conditions to avoid High temperatures and poor ventilation.

Corrosivity to metals Contact with iron, zinc or aluminium or their compounds, especially at elevated temperatures, may cause hazardous reaction and decomposition.

Incompatible materials Reacts with alkaline or alkaline earth metals which have a strong affinity for chlorine. "Plasticlor" is a plasticizer for PVC compounds, and as such tends to soften or swell most rubbers.

Hazardous decomposition products Prolonged heating at temperatures in excess of 70°C or heating above 200°C for short periods will result in decomposition and liberation of hydrogen chloride.

SECTION 11. Toxicological Information

Acute toxicity	Result	Species	Dose/ Exposure	Caution
Oral	Not classified	rats	>2gm/kg body weight	Ingestion may cause nausea and vomiting
Dermal	Slight skin irritation reported	studies using OECD Guideline 404		Can cause skin irritation
Inhalation	No deaths reported from studies	rats	3.3mg/l mix	May cause irritation

GHS – EU Group Classification, and C & L Inventory:

Skin Corrosion/Irritation: Category 2, **H315** Causes skin irritation

Eye Irritation: Category 2, **H319** Causes serious eye irritation

Respiratory or skin Sensitization: **H335** May cause respiratory irritation

Germ Cell Mutagenicity: Studies for mutagenicity were negative

Carcinogenicity: There is sufficient evidence for the carcinogenicity of a commercial chlorinated paraffin product of average carbon-chain length c12 and average degree of chlorination 60% in experimental animals. There is limited evidence for the carcinogenicity of a commercial chlorinated paraffin product of average carbon-chain length c23 and average degree of chlorination 43% in experimental animals. No data were available from studies in humans on the carcinogenicity of chlorinated paraffins. Overall evaluation: chlorinated paraffins of average carbon-chain length c12 and average degree of chlorination approximately 60% are possibly carcinogenic to humans (group 2b). This product is a C14-C17 chlorinated paraffin, medium chain product.

Reproductive Toxicity: No information is available, But this is listed under REACH as possible Lactation hazard that may cause harm to breast-fed children **H 362**

STOT – Specific Target Organ Toxicity Single or Repeat Exposure: **H335** May cause respiratory irritation

Aspiration Hazard: Not Classified but inhalation of mist may irritate the respiratory tract

SECTION 12. Ecological Information

GHS – EU Group Classification, and C & L Inventory:

Hazardous to the Aquatic Environment

Acute (short term) Category 1 – Hazard Statement H400 very toxic to aquatic life



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Chronic (long term) Category 1 – Hazard Statement **H410** Harmful to aquatic life with long lasting effects
Laboratory Studies have shown chlorinated paraffin to be toxic to Daphnia, with a low level of toxicity to fish and algae. Other limited studies have shown 4 day test 3.2mg/l level to be toxic to aquatic algae, and short term 4days toxicity test 5-10mg/l to fish.

Hazardous to the Ozone layer: No evidence - not Classified

Biodegradability - studies in soil showed a 51% degradation after 36 hours

Bio-accumulation - has limited potential for bio-accumulation

Mobility - No data available but limited potential

NB this product is on the EU CoRAP list for evaluation on PBT – persistency, bioaccumulation & toxicity

SECTION 13. Disposal Considerations

Disposal methods

Disposal must be made in accordance with the applicable National and Regional Government Regulations at approved and permitted chemical disposal sites – refer to the SA National Environmental Management Waste Act - NEM: WA, it's Regulations and local by-laws. This informs permitted Waste Facilities and Service providers see the South African Waste Information Centre sawic.environment.gov.za

Disposal of packaging

Packagings and containers, even those that have been emptied, will retain product residue and vapours, handle empty containers as if they were full. Remove all possible traces of product and wash prior to disposal of packaging and containers. Dispose in compliance with Regulations – see above and Industry Best Practice
Always observe and comply with hazard warnings.

SECTION 14. Transport information

	SANS 10228:2012	IMDG	IATA
UN Number	UN 3082	UN 3082	UN 3082
UN proper shipping name – PSN	Environmentally hazardous substance, liquid NOS (Chlorinated paraffin C14-C17)	Environmentally hazardous substance, liquid NOS (Chlorinated paraffin C14-C17)	Environmentally hazardous substance, liquid NOS (Chlorinated paraffin C14-C17)
Transport Class	9	9	9
Packing group	III	III	III
Environmental hazards	Aquatic Pollutant	IMDG supplement S-F	N/A
Additional information			
Emergency Response Guide - ERG 2020	Refer Guide 171 for info on Emergency response	Refer IMDG 37 -14 2014 Supplement & MARPOL	Refer ICAO & IATA 2015

SECTION 15. Regulatory information

OHS Act - Occupational Health and Safety Act 85 of 1993: requires site Risk Assessment and monitoring to inform personnel Health / Biological Monitoring. **Section 9A** requirement to provide an MSDS, now SDS to all who handle, store, use and transport the product.

MHI – Major Hazards Installations Regulations - OHS Act: require site Risk Assessment to ascertain potential impacts outside of the site and potential impacts on the public or neighbours. Copy to be lodged with the Dept Labour, and local Emergency Services.

NEMA – National Environmental Management Act 107 of 1998: Duty of Care and Producer Responsibility for products and packaging on a Life Cycle basis. Environmental Impact Assessment Regulations for new installations or proposed increase in capacity over 25%



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NEM: WA – National Environmental Waste Act 59 of 2008: Extended Producer Responsibility, requirements and Regulations for waste management, classification and disposal.

National Department of Health – Hazardous Substances Act

EU Directive EC 1272/2008 (EU GHS /CLP) – Safety Data Sheets and Labelling

SECTION 16. Other information

ECHA – European Chemical Agency Website, Chemical information, C&L Inventory, Chemicals of High Concern (SVHCs) and Chemicals for Community Rolling Action Plan (CoRAP)

ERG 2020 Transport Canada and US Dept Transportation PHMSA - Pipeline and Hazardous Materials Safety Administration

Other relevant information including information on preparation and revision of the SDS – ISO 11014:2009 Safety Data Sheets for Chemical Products – content and order of sections adopted as SANS 11014:2010

UN Recommendations for Transport of Dangerous Goods Model Regulations commonly known as the **TDG “Orange Books”** 21st revision published 2019

UN Globally Harmonized System of Classification and Labelling of Chemicals – GHS commonly known as the **GHS “Purple Book”** 8th revision published 2019

IMDG – International Maritime Dangerous Goods Code, 2018 edition, amendment 39-18

IATA Technical Regulations 61st edition, January 2020

Date of original MSDS : 27-03-2012 Compiled by LR Motubatse

Date of Revision 10 : 02-10-2020 Compiled by E Anderson

Approved as per Management of Change No. 15-10-2020-126

EXCLUSION OF LIABILITY

All information and instructions provided in this Safety Data Sheet (SDS) in respect of the substance is given in terms of the provisions of the Occupational Health and Safety Act No 85 of 1993 and its Regulations. Information is based on best available scientific and technical knowledge as at the date indicated on this SDS, and is presented in good faith to be correct.

The information provided in this SDS apply only to the product in its present form and not to any formulation or mix. It should be used only as directed, and any formulations or other use is at the responsibility of the user of the product as formulated and/or mixed to investigate and establish any hazards or risks which may arise out of its use, wherever such user may be situated.

It is the legal responsibility of the person in receipt of this SDS, wherever such may be situated, to ensure that the information provided is communicated to, and understood by any person who may come in contact with the product in any place and in any manner whatsoever. If such recipient produces formulations or mixes using the product, then it is the recipient's sole responsibility to comply with the provisions of the Act in respect of the provision of the necessary SDS, and/or to comply with any other applicable legislation.