

according to the Global Harmonized System

SDS #: 084849 MULTIS COMPLEX EP 2

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product identifier

Product name MULTIS COMPLEX EP 2

Other means of identification

Number B44 Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Identified uses Lubricating grease.

Uses advised againstDo not use for any purpose other than the one for which it is intended.

Details of the supplier of the safety data sheet

Supplier TOTAL OIL ASIA PACIFIC PTE LTD

182 Cecil Street #27-01 Frasers Tower Singapore 069547 Tel: +65 6879 2200 Fax: +65 6879 2203

TOTAL LUBRIFIANTS 562 Avenue du Parc de L'ile 92029 Nanterre Cedex

FRANCE

Tel: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71

See section 16 for additional information

For further information, please contact: Contact Point HSE

E-mail Address ms.ap-sds@total.com

Emergency telephone

Asia-Pacific: +65 3158 1074 Middle-East: +44 1235 239671

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture



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Skin corrosion/irritation - Category 3

Specific target organ toxicity (repeated exposure) - Category 2

GHS Label elements, including precautionary statements

Contains Calcium carbonate



Signal word

WARNING

Hazard Statements

H316 - Causes mild skin irritation

H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

- · Get medical advice/attention if you feel unwell
- If skin irritation occurs: Get medical advice/attention

Precautionary Statements - Disposal

· Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Other hazards which do not result in classification

Physical-Chemical Properties Contaminated surfaces will be extremely slippery

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Mixture</u>

Chemical nature Mineral oil of petroleum origin

Chemical Name	CAS-No	EC-No	Weight %
Paraffin oils (petroleum), catalytic dewaxed heavy	64742-70-7	265-174-4	10-<20
Calcium carbonate	471-34-1	207-439-9	1-<3
Dilithium azelate	38900-29-7	254-184-4	1-<3



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Phosphorodithioic acid, mixed	68457-79-4	270-608-0	1-<2.5
O,O-bis(iso-Bu and pentyl) esters, zinc			
salts			

Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346

4. FIRST AID MEASURES

Description of necessary first-aid measures

General advice IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR

EMERGENCY MEDICAL CARE.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Wash contaminated clothing before reuse. High pressure jets may

cause skin damage. Take victim immediately to hospital.

Inhalation Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not

breathing, give artificial respiration.

Ingestion Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an

unconscious person. Call a physician or Poison Control Center immediately.

Protection of First-aiders First aider needs to protect himself. See Section 8 for more detail. Do not use

mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper

respiratory medical device.

Most important symptoms/effects, acute and delayed

Skin contact Causes mild skin irritation. High pressure injection of the products under the skin may have

very serious consequences even though no symptom or injury may be apparent.

Eye contact Not classified based on available data.

Inhalation Not classified based on available data.

Ingestion Not classified based on available data. Ingestion may cause gastrointestinal irritation,

nausea, vomiting and diarrhea.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.



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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media Carbon dioxide (CO₂). ABC powder. Foam. Water spray or fog.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Special Hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as

carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Combustion products include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S, Mercaptans,

Nitrogen oxides (NOx), Phosphorous oxides, Zinc oxides.

Advice for fire-fighters

Special protective equipment for

fire-fighters

Wear self-contained breathing apparatus and protective suit.

Other information Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing

water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely

slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all

sources of ignition.

Environmental precautions

General InformationDo not allow material to contaminate ground water system. Prevent entry into waterways,

sewers, basements or confined areas. Local authorities should be advised if significant

spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment If necessary dike the product with dry earth, sand or similar non-combustible materials.

Methods for cleaning up Dispose of contents/container in accordance with local regulation. In case of soil

contamination, remove contaminated soil for remediation or disposal, in accordance with

local regulations.

Other information



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Personal Protective Equipment See Section 8 for more detail.

Waste treatment See section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling For personal protection see section 8. Use only in well-ventilated areas. Avoid contact with

skin, eyes and clothing.

Prevention of fire and explosion Take precautionary measures against static discharges.

Hygiene measures Ensure the application of strict rules of hygiene by the personnel exposed to the risk of

contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product

contaminated rags into workwear pockets.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage

conditions

Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical

contacts. Store at room temperature. Protect from moisture.

Materials to Avoid Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits Mineral oil mist:

USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH

(TLV) TWA 5 mg/m³ (highly refined)

Appropriate engineering controls

Engineering Measures Apply technical measures to comply with the occupational exposure limits. Ensure



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adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Individual protection measures, such as personal protective equipment (PPE)

Personal Protective Equipment

General Information Protective engineering solutions should be implemented and in use before personal

protective equipment is considered. These recommendations apply to the product as

supplied.

Respiratory protection When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387): Type A/P2. Warning! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations

governing their choices and uses.

Eye Protection Safety glasses with side-shields. EN 166.

Skin and body protection Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing. Type

4/6.

Hand Protection Hydrocarbon-proof gloves: Fluorinated rubber, Nitrile rubber. In case of prolonged contact

with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is

used, such as the danger of cuts, abrasion, and the contact time.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Color red Physical State @20°C solid

Odor Characteristic

Odor Threshold No information available

Important health safety and environmental information



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Property Values Remarks Method

pH Not applicable

Melting point/range No information available

Boiling point/boiling range Not applicable

Flash point Not applicable

Evaporation rateNo information available

Flammability Limits in Air

No information available

 upper
 No information available

 Lower
 No information available

 /appr Pressure
 No information available

Vapor Pressure
Vapor density

No information available
No information available

Relative density0.900@ 15 °CASTM D 4052Density 900 kg/m^3 @ 15 °CASTM D 4052

Water solubility Insoluble

Solubility in other solvents

No information available
logPow

No information available

Autoignition temperatureNo information availableDecomposition temperatureNo information available

Viscosity, kinematic Not applicable

Explosive properties Not explosive Oxidizing Properties Not applicable

Possibility of hazardous reactions None under normal processing

Other information

Freezing Point No information available

Drop point $>= 250 \, ^{\circ}\text{C}$ ASTM D 2265

10. STABILITY AND REACTIVITY

Reactivity None under normal processing.

<u>Chemical stability</u> Stable under recommended storage conditions.

<u>Possibility of hazardous reactions</u> No dangerous reaction known under conditions of normal use.

<u>Conditions to avoid</u> Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat



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and sparks.

Materials to Avoid Strong oxidizing agents.

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as

carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Combustion products include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S, Mercaptans,

Nitrogen oxides (NOx), Phosphorous oxides, Zinc oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation Not classified based on available data.

Ingestion Not classified based on available data. Ingestion may cause gastrointestinal irritation,

nausea, vomiting and diarrhea.

Skin contactCauses mild skin irritation. High pressure injection of the products under the skin may have

very serious consequences even though no symptom or injury may be apparent.

Eye contact Not classified based on available data.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity - Product Information

Oral Not classified based on available data.

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

Dermal Not classified based on available data.

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

Inhalation Not classified based on available data.

23.85984 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Paraffin oils (petroleum), catalytic	LD50 >5000 mg/kg (rat)	LD50 >5000 mg/kg (rabbit)	
dewaxed heavy			



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Calcium carbonate	= 6450 mg/kg (Rat)	LD50 >2000 mg/kg (rat-Wistar)	
Dilithium azelate	LD50 >300 mg/kg bw (rat)	LD50 >2000 mg/kg bw (rat)	
Phosphorodithioic acid, mixed	LD50 3600 mg/kg (Rat - OECD 401)	LD50 > 20000 mg/kg (Rabbit -	
O,O-bis(iso-Bu and pentyl) esters,		OECD 402)	
zinc salts			

Skin corrosion/irritationCauses mild skin irritation.

Serious eye damage/eye irritation Not classified based on available data. The supplier of one or more of the components

contained within this formulation has indicated that he has data on the components and/or similar mixtures, which confirms that at the concentration used, classification is not

required.

Sensitization Not classified based on available data.

Carcinogenicity Not classified based on available data

Germ Cell Mutagenicity Not classified based on available data

Reproductive toxicity Not classified based on available data.

Target Organ Effects (STOT) None known

STOT - single exposure Not classified based on available data

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure

Aspiration hazard Not classified based on available data.

Other adverse effects Characteristic skin lesions (pimples) may develop following prolonged and repeated

exposures (contact with contaminated clothing).

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not classified based on available data.

Acute aquatic toxicity - Product Information

No information available.

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and	Toxicity to fish	Toxicity to
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		other aquatic invertebrates		microorganisms
Paraffin oils (petroleum), catalytic dewaxed heavy 64742-70-7	NOEL(72h) >100 mg/l (Pseudokirchneriella subcapitata)	EL50(48h) >10000 mg/l (Daphnia magna)	LC50(96h) >100 mg/l (Pimephales promelas)	
Dilithium azelate 38900-29-7	LC50 >100 mg/l	LC50 >100 mg/l	LC50 >100 mg/l	
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4	EbL50 (72h) 21 mg/l (Scenedesmus subspicatus - OECD 201)	EC50 (48h) 23 mg/l (Daphnia magna - OECD 202)	LC50 (96h) 4.5 mg/l (Cyprinodon variegatus - OECD 203)	

Chronic aquatic toxicity - Product Information

No information available.

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and	Toxicity to fish	Toxicity to
		other aquatic invertebrates		microorganisms
Phosphorodithioic acid,		NOEC(21d) 0.8 mg/l		
mixed O,O-bis(iso-Bu and		Daphnia magna		
pentyl) esters, zinc salts				
68457-79-4				

Effects on terrestrial organisms

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

Product Information No information available.

logPow No information available

Component Information

Chemical Name	log Pow
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc	0.69
salts - 68457-79-4	

Mobility

Soil Given its physical and chemical characteristics, the product has no soil mobility.



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Air Loss by evaporation is limited.

Water The product is insoluble and floats on water.

Other adverse effects

General Information No information available.

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused

Products

Should not be released into the environment. Do not empty into drains. Dispose of in

accordance with all applicable national environmental laws and regulations.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or

disposal.

Other information Refer to section 8 for safety and protective measures for disposal personnel.

14. TRANSPORT INFORMATION

ADR/RID Not regulated

IMDG/IMO Not regulated

ICAO/IATA Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

following inventories:

Australia (AICS) China (IECSC) Korea (KECL) Japan (ENCS) U.S.A. (TSCA) Canada (DSL/NDSL)

Europe (EINECS/ELINCS/NLP)

Philippines (PICCS)



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Further information

No information available

National regulatory information

No information available

16. OTHER INFORMATION

Issuing date: 2018-03-29 **Revision Date:** 2020-03-02

Revision Note No information available.

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

ATE = Acute Toxicity Estimate

QSAR = Quantitative Structure-Activity Relationship

EL50 = median Effective Loading

NOELR = No Observed Effect Loading Rate

PAH = Polycyclic aromatic hydrocarbons

LOEC = Lowest Observed Effect Concentration

PVA = Polyvinyl alcohol

PVC = Polyvinyl chloride

ECOSAR = Ecological Structure Activity Relationships

CNS = Central nervous system

EPA = Environmental Protection Agency

ErL50 = effective loading on growth rate in algae test, to cause a 50% response

EbL50 = effective loading on growth with the control in algae test, to cause a 50% response

Legend

Section 8 ACGIH - American Conference of Governmental Industrial Hygienists

TWA - Time Weight Average



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STEL - Short Term Exposure Limits

S* - Skin notation

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Ceiling: Maximum limit value

Additional details on the supplier of the product

U.A.E Supplier TOTAL MARKETING MIDDLE EAST FZE

Burjuman Business Tower, 11th Floor

Sheikh Khalifa Bin Zayed Road

Dubai P.O. Box 14871

U.A.E

Tel: +971 4 709 50 00 Fax: +971 4 351 91 54

TOTAL OIL INDIA PVT. LTD. **INDIA Supplier**

3rd Floor, The Leela Galleria,

Andheri - Kurla Road, Andheri (East), Mumbai Maharashtra State, INDIA 400059

Tel: +91 22 6723 2500 Fax: +91 22 6723 2600

LEBANON Supplier TOTAL LIBAN

Rue Achrafieh, Imm. Tilal Bloc B, 2ème Etage

B.P. 11-3636 Beyrouth - Liban

Tel: + 961 1 21 22 50 Fax: +961 1 21 21 33

PAPUA NEW

TOTAL OIL ASIA PACIFIC PTE LTD - PNG

GUINEA Supplier Cuthbertson Street

Level 4, Cuthbertson House PO BOX 1784

Port Moresby Papua New Guinea Tel: +675 320 2141 Fax: +675 320 3951 CAMBODIA TOTAL CAMBODGE

Supplier ANINA Building 6th Floor, No 240, St. 271, B.P600,

12351 Phnom Penh, Cambodia

Tel: +855 23 218 630 Fax: +855 23 217 662

JORDAN Supplier **TOTAL JORDAN**

> Reem Center, 4th Floor 244 Arar Street, Wadi Saqra P.O. Box 831285, Amman 11183

Jordan

Tel: +962 6 500 80 05 Fax: +962 6 500 80 08

PAKISTAN Supplier TOTAL PARCO PAKISTAN LTD

10 Tariq Block, New Garden Town

Lahore 54700, Pakistan Tel: +92 42 111 709 709 Fax: +92 42 354 683 66

SAUDI ARABIA

Supplier

SAUDI TOTAL PETROLEUM PRODUCTS CO.

LTD

704, Zahran Business Center Sultan street - Tower A, 7th floor PO Box 4861, Jeddah 21463

K.S.A

Tel: +966 12 22 56 300 Fax: +966 12 22 56 311

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive.It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the Safety Data Sheet