

Safety Data Sheet dated 23/9/2024, version 30

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

1.1. Product identifier

Mixture identification:

Trade name: 6 in 1 SPRAY ML 400

Trade code: 41691

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

Recommended use: spray lubricant

Uses advised against:

Strictly adhere to the recommended uses.

1.3. Details of the supplier of the safety data sheet

Supplier:

Arexons S.p.A.

via Antica di Cassano, 23, 20063

Cernusco sul Naviglio (MI), Italy

Arexons S.p.A.

Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306

Competent person responsible for the safety data sheet:

arexons@arexons.it

1.4. Emergency telephone number

Arexons S.p.A.

Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111 In Ireland: emergency number 112

In South Africa: Poison Information Helpline 0861 555 777

In Malta: emergency number 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

- Warning, Aerosols 2, Flammable aerosol. Pressurized container: may burst if heated.
- Warning, STOT SE 3, May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H223, H229 Flammable aerosol. Pressurized container: may burst if heated.

H336 May cause drowsiness or dizziness.

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.

41691/30

Page n. 1 of 11



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.

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

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 applicable regulations.

Special Provisions:

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

Regulation (EC) nr 648/2004 (detergents).

Product contents:

Aliphatic hydrocarbons > 30 %

The product also contains: Perfumes
Allergens: Benzyl salicylate

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

stta	Name	Ident. Numb	er	Classification
	Hydrocarbons, C9- C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	CAS: EC: REACH No.:	64742-48-9 919-857-5 01- 2119463258 -33	 ◆ 2.6/3 Flam. Liq. 3 H226 ◆ 3.10/1 Asp. Tox. 1 H304 ◆ 3.8/3 STOT SE 3 H336 EUH066 DECLP (CLP)*
>= 3% - < 5%	Chilled liquid carbon dioxide	CAS: EC:	124-38-9 204-696-9	♦ 2.5/RL Press Gas (Ref. Liq.) H281
>= 0,5% - < 1%	Baseoil - unspecified.	CAS: EC: REACH No.:	64742-54-7 265-157-1 01- 2119484627 -25	

*DECLP (CLP): Substance classified in accordance with Note P, Annex VI of EC Regulation (EC) 1272/2008. The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.



*DECLL (CLP): Substance classified in accordance with Note L, Annex VI of EC Regulation (EC) 1272/2008. The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

None

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Appropriate Extinguishing Media:

To carbon dioxide.

To dust.

Foam

Water spray.

Not Recommended Extinguishing Media:

Do not use direct water jets.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Normal fire-fighting clothing, such as an open-circuit compressed air breathing apparatus (EN 137), flame-resistant suit (EN469), flame-resistant gloves (EN 659) and firefighter's boots (HO A29 or A30).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures Wear personal protection equipment. Remove all sources of ignition.

41691/30



Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

For cleaning up:

Avoid flame and/or spark near leak and produced waste. Do not smoke. In case of large spills dike.

absorb and shovel up into suitable containers for disposal. Contain small spills with absorbent material

Put dirty material in suitable container. Dispose of dirty material in accordance with local or national

regulations.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Only store in the original container.

Store at below 50 $^{\circ}$ C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight. Keep away from food, drink and feed.

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics - CAS: 64742-48-9

ACGIH - TWA: 1200 mg/m3, 197 ppm

Chilled liquid carbon dioxide - ČAS: 124-38-9

EÚ - TWA(8h): 9000 mg/m3, 5000 ppm ACGIH - TWA(8h): 5000 ppm - STEL: 30000 ppm - Notes: Asphyxia

Baseoil - unspecified. - CAS: 64742-54-7

EU - TWA: 5 mg/m3

DNEL Exposure Limit Values

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics - CAS: 64742-48-9

Worker Professional: 208 mg/kg - Exposure: Human Dermal - Frequency: Long Term,

systemic effects

Worker Professional: 871 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

41691/30



Consumer: 125 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic

effects

Consumer: 185 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic

effects

Consumer: 125 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.

Compliant with EN 166

Protection for skin:

protective clothing

Protection for hands:

Nitrile or Viton gloves. Compliant with EN 374.

Thickness: Cuff 0.10 mm; Palm 0.12 mm; Fingers 0.145 mm

Respiratory protection:

Use a suitable respiratory protection device.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Physical state:	Liquid		
Colour:	Amber		
Odour:	Characteristic		
Melting point/freezing point:	N.A.		
Boiling point or initial boiling point and boiling range:	N.A.		
Flammability:	N.A.		
Lower and upper explosion limit:	N.A.		
Flash point:	42°C (liquid phase)	IP 170	
Auto-ignition temperature:	N.A.		
Decomposition temperature:	N.A.		
pH:	Not Relevant		



Kinematic viscosity:	N.A.		
Solubility in water:	Insoluble		
Solubility in oil:	completament e Soluble		completely miscible
Partition coefficient n-octanol/water (log value):	N.A.		
Vapour pressure:	N.A.		
Density and/or relative density:	0,81 g/cm3	ASTM D 4052-96	
Relative vapour density:	N.A.		
Particle characteristics:			
Particle size:	N.A.		

9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Excessive heat.

10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 Toxicological information of the product:

6 in 1 SPRAY ML 400

a) acute toxicity

Not classified

Based on available data, the classification criteria are not met

b) skin corrosion/irritation

Not classified

Based on available data, the classification criteria are not met

c) serious eye damage/irritation

Not classified

Based on available data, the classification criteria are not met

d) respiratory or skin sensitisation

Not classified

Based on available data, the classification criteria are not met e) germ cell mutagenicity

.



Not classified

Based on available data, the classification criteria are not met

f) carcinogenicity

Not classified

Based on available data, the classification criteria are not met

g) reproductive toxicity

Not classified

Based on available data, the classification criteria are not met

h) STOT-single exposure

The product is classified: STOT SE 3 H336

i) STOT-repeated exposure

Not classified

Based on available data, the classification criteria are not met

i) aspiration hazard

Not classified

Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics - CAS: 64742-48-9

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat > 5000 mg/m3 - Duration: 4h - Source:

ECHA BP - SUPPLIER SDS

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Source: ECHA BP - SUPPLIER

SDS

Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg - Source: ECHA BP -

SUPPLIER SDS

h) STOT-single exposure:

Test: May cause drowsiness and dizziness. Positive - Source: SUPPLIER SDS - No data available for the product

i) STOT-repeated exposure:

Test: OECD 422 Negative - Source: SUPPLIER SDS

Test: NOAEL - Route: Oral - Species: Rat > 1000 mg/kg - Source: ECHA BP

Test: NOAEL - Route: Inhalation - Species: Rat 200 Ppm - Source: ECHA BP

Test: NOAEC - Route: Inhalation - Species: Rat > 275 mg/m3 - Source: ECHA BP

j) aspiration hazard:

Test: May be fatal if swallowed and enters airways (physical-chemical properties) - Route:

Oral - Source: SUPPLIER SDS

Baseoil - unspecified. - CAS: 64742-54-7

f) carcinogenicity:

Negative

h) STOT-single exposure:

Test: Respiratory Tract Irritant Positive

j) aspiration hazard:

Test: May be fatal if swallowed and enters airways (physical-chemical properties) Positive

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment. Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics - CAS: 64742-48-9

a) Aquatic acute toxicity:

Endpoint: EL0 - Species: Daphnia 1000 mg/l - Duration h: 48

Endpoint: EL50 - Species: Algae > 1000 mg/l - Duration h: 72

Endpoint: LL50 - Species: Fish > 1000 mg/l - Duration h: 96

Endpoint: NOELR - Species: Algae 100 mg/l - Duration h: 72



Baseoil - unspecified. - CAS: 64742-54-7

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96 Endpoint: EC50 - Species: Daphnia > 10000 mg/l - Duration h: 48 Endpoint: EC50 - Species: Daphnia > 10 mg/l - Duration h: 48 Endpoint: EC50 - Species: Daphnia > 10 mg/l - Duration h: 48 Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 96

12.2. Persistence and degradability

None

Baseoil - unspecified. - CAS: 64742-54-7 Test: BIOGDG06 - Duration: 28gg - %: 31

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Additional disposal information:

"Use in accordance with good working practices, avoiding dispersal in the environment. Do not discharge into drains, ground water or water courses. Comply with current legislation on the protection of water and soil from pollution (Legislative Decree No. 152 of 3/4/2006). Dispose of used product and containers by handing them over to authorised companies, in accordance with the provisions of

Legislative Decree No. 152/2006 (Consolidated Environmental Act, which replaced the Ronchi Decree) as amended.

The used product is to be considered special waste to be classified in accordance with Directive No. 2008/98/EC on waste and related matters. Recover if possible. Send to authorised disposal plants or incineration under

controlled conditions (152/2006 art. 184).

Act in accordance with the local and national laws in force.

Contaminated packaging must be emptied as far as possible. After cleaning, send to an authorised centre for recycling or disposal."

SECTION 14: Transport information



14.1. UN number or ID number

ADR-UN Number: 1950 IATA-UN Number: 1950 IMDG-UN Number: 1950

14.2. UN proper shipping name

ADR-Shipping Name: AEROSOLS, flammable AEROSOLS, flammable

41691/30

Page n. 8 of 11



IMDG-Shipping Name: AEROSOLS, flammable

14.3. Transport hazard class(es)

ADR-Class: ADR - Hazard identification number:

IATA-Class: 2 IATA-Label: 2.1 IMDG-Class: 2

2 UN 1950 Sea (IMO):

14.4. Packing group

ADR-Packing Group: IATA-Packing group: IMDG-Packing group:

14.5. Environmental hazards

ADR-Enviromental Pollutant: No IMDG-Marine pollutant: No IMDG-EmS: F-D. S-U

14.6. Special precautions for user

ADR-Subsidiary hazards: See SP63 190 327 344 625 ADR-S.P.:

ADR-Transport category (Tunnel restriction code): 2 (D)

IATA-Passenger Aircraft: 203 IATA-Subsidiary hazards: See SP63 IATA-Cargo Aircraft: 203

IATA-S.P. A145 A167 A802

IATA-ERG: 10L IMDG-Subsidiary hazards: See SP63 SW1 SW22 IMDG-Stowage and handling: IMDG-Segregation: SG69

14.7. Maritime transport in bulk according to IMO instruments

N.A.

Limited Quantity: 1 L Exempted Quantity: E0

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP) Regulation (EU) n. 618/2012 (ATP 3 CLP) Regulation (EU) n. 487/2013 (ATP 4 CLP) Regulation (EU) n. 944/2013 (ATP 5 CLP) Regulation (EU) n. 605/2014 (ATP 6 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP) Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP) Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP) Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)



Regulation (EU) n. 2021/849 (ATP 17 CLP) Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3 Restriction 40

Restrictions related to the substances contained:

Restriction 75

Volatile Organic compounds - VOCs = 74.49 % Volatile Organic compounds - VOCs = 744.87 g/Kg Volatile Organic compounds - VOCs = 603.34 g/l

Where applicable, refer to the following regulatory provisions:

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: P3b

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture. Substances for which a Chemical Safety Assessment has been carried out: Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

SECTION 16: Other information

Text of phrases referred to under heading 3:

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

H281 Contains refrigerated gas; may cause cryogenic burns or injury.

Hazard class and hazard category	Code	Description
Aerosols 2	2.3/2	Aerosol, Category 2
Press Gas (Ref. Liq.)	2.5/RL	Gases under pressure (Refrigerated liquefied gas)
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3

Paragraphs modified from the previous revision:

SECTION 6: Accidental release measures

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

SECTION 10: Stability and reactivity



SECTION 13: Disposal considerations

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aerosols 2, H223, H229	On basis of test data
STOT SE 3, H336	Calculation method (Aerosol without propellant)

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of

Dangerous Goods by Road.

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

CAS: Chemical Abstracts Service (division of the American Chemical

Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of

Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport

Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization"

(ICAO).

IMDG: International Maritime Code for Dangerous Goods. INCI: International Nomenclature of Cosmetic Ingredients.

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

NA: Not applicable

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods

by Rail.

STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWA: Time-weighted average

41691/30

Page n. 11 of 11

arexons

WGK: German Water Hazard Class.

Exposure Scenario, 08/07/2019

Substance identity	
Chemical name	Hydrocarbons C9-C11 cyclics-iso-alkanes <2% aromatics, declass. ex Notes "P"
CAS No.	64742-48-9
EINECS No.	919-857-5

Table of contents

1.	ES 1	Formulation or re-packing; Solvent-based process
2.	ES 2	Use at industrial site
3.	ES 3	Use at industrial site
4.	ES 4	Widespread use by professional workers
5.	ES 5	Widespread use by professional workers
6.	ES 6	Consumer use; Various products (PC1, PC24, PC31)
7.	ES 7	Consumer use; Various products (PC1, PC24, PC31)
8.	ES 8	Consumer use; Adhesives, sealants (PC1)
9.	ES 9	Consumer use; Various products (PC39, PC28)

1. ES 1 Form	ulation or re-packing; Solvent-bas	sed process
1.1 TITLE SECTION		
Exposure Scenario name	Formulation and (re) packaging of substances and	mixtures
Date - Version	28/06/2019 - 1.0	
Life Cycle Stage	Formulation or re-packing	
Main user group	Industrial uses	
Sector(s) of use	Industrial uses (SU3) - Formulation [mixing] of prepared	parations and/or re-packaging (SU10)
Environment Contributing Sc	enario	
CS1 Wet formulation		ERC2
Worker Contributing Scenari	o	
CS2 General exposures		PROC5 - PROC1 - PROC2 - PROC3 - PROC4 - PROC8a - PROC8b - PROC9 - PROC14 - PROC15
1.2 Conditions of use	e affecting exposure	
1.2. CS1: Environment Contri	buting Scenario: Wet formulation (ERC2)	
Environmental release categories	Formulation into mixture (ERC2)	
Product (article) character	ristics	
Physical form of product: Liquid		
1.2. CS2: Worker Contributin PROC8b, PROC9, PROC14, PR		
Mixing or blending in batch processes - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Tabletting, compression, extrusion, pelletisation, granulation - Use as laboratory reagent (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC14, PROC15)		

Product (article) characteristics

Physical form of product:

Liquid

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Other conditions affecting worker exposure

Temperature: Assumes use at not more than 20 °C above ambient temperature. 20 °C

1.3 Exposure estimation and reference to its source

N/A

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

2. ES 2 Use at industrial site

2.1 TITLE SECTION

Exposure Scenario name	Lubricating agent
Date - Version	28/06/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)

Environment Contributing Scenario

CS1 Solvent-based process ERC4 - ERC7

Worker Contributing Scenario

CS2 General measures applicable to all activities

PROC1 - PROC2 - PROC3 - PROC4 -PROC7 - PROC8a - PROC8b - PROC9 -PROC10 - PROC13 - PROC17 - PROC18

2.2 Conditions of use affecting exposure

2.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC4, ERC7)

Environmental	release
categories	

Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Use of functional fluid at industrial site (ERC4, ERC7)

Chemical production or refinery in closed process without likelihood of exposure or

PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, PROC18)

2.2. CS2: Worker Contributing Scenario: General measures applicable to all activities (PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, PROC18)

processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Industrial spraying - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Treatment of articles by dipping and pouring - Lubrication at high energy conditions in metal working operations - General greasing/lubrication at high kinetic energy conditions (PROC1, PROC2, PROC3, PROC4,

Process Categories

Product (article) characteristics

Physical form of product:

Liquid

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection

Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

Temperature: Assumes use at not more than 20 °C above ambient temperature.

2.3 Exposure estimation and reference to its source

N/A

2.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

Use at industrial site 3. ES 3

3.1 TITLE SECTION

Exposure Scenario name	Lubricants - Industrial use
Date - Version	28/06/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)

Environment Contributing Scenario

CS1 Solvent-based process	ERC4 - ERC7
---------------------------	-------------

Worker Contributing Scenario

CS2 Lubricants	PROC7 - PROC8a - PROC8b - PROC9 -
	PROC10 - PROC13 - PROC17 - PROC18

3.2 Conditions of use affecting exposure

3.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC4, ERC7)

Environmental release	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Use of
categories	functional fluid at industrial site (ERC4, ERC7)

Product (article) characteristics

Physical form of product:

Liquid

3.2. CS2: Worker Contributing Scenario: Lubricants (PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, PROC18)

processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises -Industrial spraying - Transfer of substance or mixture (charging and discharging) at nonfacilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Treatment of articles by dipping and pouring - Lubrication at high energy conditions in metal working operations - General

Chemical production or refinery in closed process without likelihood of exposure or

PROC1 - PROC2 - PROC3 - PROC4 -

Process Categories

dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated greasing/lubrication at high kinetic energy conditions (PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, PROC18)

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Use in contained systems

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection

Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

Temperature: Assumes use at not more than 20 °C above ambient temperature.

3.3 Exposure estimation and reference to its source

N/A

3.4 Guidance to DU to evaluate whether he works inside the boundaries set by the FS

Guidance to check compliance with the exposure scenario:

4. ES 4 Widespread use by professional workers

4.1 TITLE SECTION

Exposure Scenario name	Lubricants - Industrial use	
Date - Version	28/06/2019 - 1.0	
Life Cycle Stage	Widespread use by professional workers	
Main user group	Professional uses	
Sector(s) of use	Professional uses (SU22)	

Environment Contributing Scenario

CS1 Solvent-based process	ERC9a - ERC9b
---------------------------	---------------

Worker Contributing Scenario

	PROCZU - PROCI - PROCZ - PROCS -
CS2 Lubricants	PROC8a - PROC8b - PROC9 - PROC10 -
	PROC11 - PROC13 - PROC17 - PROC18

4.2 Conditions of use affecting exposure

4.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC9a, ERC9b)

PROC13, PROC17, PROC18)

Environmental release	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor)
categories	(ERC9a, ERC9b)

4.2. CS2: Worker Contributing Scenario: Lubricants (PROC20, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17, PROC18)

Use of functional fluids in small devices - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Non industrial spraying - Treatment of articles by dipping and pouring - Lubrication at high energy conditions in metal working operations - General greasing/lubrication at high kinetic energy conditions (PROC20, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC9, PROC10, PROC11,

Process Categories

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

4.3 Exposure estimation and reference to its source

N/A

4.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

DDOC

DDCC2

DDOC20 DDOC1

Guidance to check compliance with the exposure scenario:

5. ES 5 Widespread use by professional workers

5.1 TITLE SECTION

Exposure Scenario name	Lubricants (high power)	
Date - Version	28/06/2019 - 1.0	
Life Cycle Stage	Widespread use by professional workers	
Main user group	Professional uses	
Sector(s) of use	Professional uses (SU22)	

Environment Contributing Scenario

CS1 Solvent-based process	EKC8a - EKC80
Worker Contributing Scenario	
	PROC20 - PROC1 - PROC2 - PROC3 -

PROC4 - PROC8a - PROC8b - PROC9 -PROC10 - PROC11 - PROC13 - PROC17 - PROC18

5.2 Conditions of use affecting exposure

5.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a, ERC8d)

Environmental release	
categories	

Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)

Product (article) characteristics

Physical form of product:

Liquid

CS2 Lubricants

5.2. CS2: Worker Contributing Scenario: Lubricants (PROC20, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17, PROC18) Use of functional fluids in small devices - Chemical production or refinery in closed process

without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Non industrial spraying - Treatment of articles by dipping and pouring - Lubrication at high energy conditions in metal working operations - General greasing/lubrication at high kinetic energy conditions (PROC20, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17,

Process Categories

Product (article) characteristics

Physical form of product:

. Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

PROC18)

Duration:

Covers daily exposures up to 8 hours

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection

Wear suitable gloves tested to EN374.

5.3 Exposure estimation and reference to its source

N/A

5.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

6. ES 6 Consumer use; Various products (PC1, PC24, PC31)

6.1 TITLE SECTION

Exposure Scenario name	Lubricants (low release)	
Date - Version	28/06/2019 - 1.0	
Life Cycle Stage	Consumer use	
Main user group	Consumer uses	
Sector(s) of use	Consumer uses (SU21)	
Product Categories	Adhesives, sealants (PC1) - Lubricants, greases, release products (PC24) - Polishes and wax blends (PC31)	

Environment Contributing Scenario

CS1 Solvent-based process

ERC9a - ERC9b

Consumer Contributing Scenario

CS2 Lubricants

6.2 Conditions of use affecting exposure

6.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC9a, ERC9b)

Environmental release Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) categories (ERC9a, ERC9b)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure < 0,5 kPa at STP

6.2. CS2: Consumer Contributing Scenario: Lubricants

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Frequency:

Covers exposure up to 1 events per day

Other conditions affecting consumers exposure

Temperature: Covers use at ambient temperatures.

6.3 Exposure estimation and reference to its source

N/A

6.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

7. ES 7 Consumer use; Various products (PC1, PC24, PC31)

7.1 TITLE SECTION

Exposure Scenario name	Lubricants (low release)
Date - Version	01/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Adhesives, sealants (PC1) - Lubricants, greases, release products (PC24) - Polishes and wax blends (PC31)

Environment Contributing Scenario

CS1 Solvent-based process	ERC9a - ERC9b
Consumer Contributing Scenario	
CS2 Lubricants	PC24
CS3 Lubricants	PC1
CS4 Lubricants	PC31 - PC23_1, PC31_1 - PC23_2, PC31_2

7.2 Conditions of use affecting exposure

7.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC9a, ERC9b)

Environmental release	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor)
categories	(ERC9a, ERC9b)

7.2. CS2: Consumer Contributing Scenario: Lubricants (PC24)

|--|

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Frequency:

Covers exposure up to 1 uses per day

Frequency:

Covers exposure up to 4 days per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

Temperature: Covers use at ambient temperatures.

Ventilation rate: Covers use under typical household ventilation.

7.2. CS3: Consumer Contributing Scenario: Lubricants (PC1)

Product Categories	Adhesives, sealants (PC1)
Product (article) characteristics	

Physical form of product:

Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:

Covers concentrations up to 30 %

Amount used, frequency and duration of use/exposure

Frequency:

Covers use up to 1 uses per day

Frequency:

Covers exposure up to 365 days per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 20 m³ **Temperature:** Covers use at ambient temperatures.

Ventilation rate: Covers use under typical household ventilation.

7.2. CS4: Consumer Contributing Scenario: Lubricants (PC31)

Product Categories	Polishes and wax blends (PC31)
Product (Sub-)Categories	Polishes, wax/cream (floor, furniture, shoes) - Polishes, spray (furniture, shoes) (PC23_1, PC31_1, PC23_2, PC31_2)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:

Covers concentrations up to 50 %

Amount used, frequency and duration of use/exposure

Frequency:

Covers exposure up to 1 uses per day

Frequency:

Covers exposure up to 29 days per year

Other conditions affecting consumers exposure

Indoor use

Room size: Covers use in room size of 20 m³

7.3 Exposure estimation and reference to its source

N/A

7.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

8. ES 8 Consumer use; Adhesives, sealants (PC1)

8.1 TITLE SECTION

Exposure Scenario name	Lubricants (high release)
Date - Version	01/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Adhesives, sealants (PC1)

Environment Contributing Scenario

CS1 Waste management ERC8a

Consumer Contributing Scenario

CS2 Lubricants PC1

8.2 Conditions of use affecting exposure

8.2. CS1: Environment Contributing Scenario: Waste management (ERC8a)

Environmental release Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) categories (ERC8a)

8.2. CS2: Consumer Contributing Scenario: Lubricants (PC1)

Product Categories Adhesives, sealants (PC1)

Product (article) characteristics

Physical form of product:

Liquid

8.3 Exposure estimation and reference to its source

N/A

8.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

9. ES 9 Consumer use; Various products (PC39, PC28)

9.1 TITLE SECTION

Exposure Scenario name	Cosumer other uses
Date - Version	01/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Cosmetics, personal care products (PC39) - Perfumes, fragrances (PC28)

Environment Contributing Scenario

CS1 Processing of organic liquids ERC8a - ERC8d

Consumer Contributing Scenario

CS2 Consumer PC39 - PC28

9.2 Conditions of use affecting exposure

9.2. CS1: Environment Contributing Scenario: Processing of organic liquids (ERC8a, ERC8d)

Environmental release	
categories	

Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)

9.2. CS2: Consumer Contributing Scenario: Consumer (PC39, PC28)

Product Categories Cosmetics, personal care products - Perfumes, fragrances (PC39, PC28)

Product (article) characteristics

Physical form of product:

Liquid

9.3 Exposure estimation and reference to its source

N/A

9.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario: