# Safety Data Sheet
# GOMMA SPRAY AUTO

**Safety Data Sheet dated 7/10/2024, version 11**

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

1.1. Product identifier

Mixture identification:

Trade name: GOMMA SPRAY AUTO

Trade code: 8473

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

Recommended use:

Product to repair and inflate any kind of tyre

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):

Danger, Aerosols 1, Extremely flammable aerosol. Pressurized container: may burst if heated.

Warning, Eye Irrit. 2, Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:

2.2. Label elements

Hazard pictograms:

Danger

Hazard statements:

H222, H229 Extremely flammable aerosol. Pressurized container: may burst if heated.

H319 Causes serious eye irritation.

Precautionary statements:

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

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

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

P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
Special Provisions:
None
Special provisions according to Annex XVII of REACH and subsequent amendments:
None

2.3. Other hazards
No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%
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. Number | | Classification |
|---|---|---|---|---|
| >= 50% - < 60% | Hydrocarbons, C3-4; Petroleum gas | Index number:<br>CAS:<br>EC:<br>REACH No.: | 649-199-00-1<br>68476-40-4<br>270-681-9<br>01-2119486557-22 | 2.2/1A Flam. Gas 1A H220<br>2.5/L Press Gas (Liq.) H280<br>DECLK (CLP)* |
| >= 3% - < 5% | ethanediol | Index number:<br>CAS:<br>EC:<br>REACH No.: | 603-027-00-1<br>107-21-1<br>203-473-3<br>01-2119456816-28 | 3.1/4/Oral Acute Tox. 4 H302<br>3.9/2 STOT RE 2 H373 |
| >= 0,5% - < 1% | Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | CAS:<br>EC:<br>REACH No.: | 308062-28-4<br>931-292-6<br>01-2119490061-47 | 3.1/4/Oral Acute Tox. 4 H302<br>3.2/2 Skin Irrit. 2 H315<br>3.3/1 Eye Dam. 1 H318<br>4.1/A1 Aquatic Acute 1 H400<br>4.1/C2 Aquatic Chronic 2 H411 |
| >= 0,5% - < 1% | ammonia ....% | Index number:<br>CAS:<br>EC:<br>REACH No.: | 007-001-01-2<br>1336-21-6<br>215-647-6<br>01-2119488776-14 | 3.2/1B Skin Corr. 1B H314<br>4.1/A1 Aquatic Acute 1 H400<br>Specific Concentration Limits:<br>C >= 5%: STOT SE 3 H335 |

*DECLK (CLP): Substance classified in accordance with Note K, 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 1,3- butadiene (Einecs No 203-450-8), 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-)P210-P403 shall apply.

## 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.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Protect uninjured eye.

In 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.
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.
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

Store in well-closed containers, preferably in a cool place, away from sources of heat and direct sunlight.
Only store in the original container.
Avoid exposure to direct sunlight.
Store at temperatures below 50°C/122°F.
Store at below 50 °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, C3-4; Petroleum gas - CAS: 68476-40-4
MAK - TWA: 2400 mg/m3, 1000 ppm
TLV TWA - 1900 mg/m3, 800 ppm
ethanediol - CAS: 107-21-1
20101.13 - TWA(8h): 52 mg/m3, 20 ppm - STEL(): 104 mg/m3, 40 ppm
EU - TWA(8h): 52 mg/m3, 20 ppm - STEL: 104 mg/m3, 40 ppm - Notes: Skin
ACGIH - STEL: 10 mg/m3 - Notes: (I, H), A4 - URT irr
ammonia ....% - CAS: 1336-21-6
ACGIH - TWA: 17 mg/m3, 25 ppm - STEL: Ceiling 24 mg/m3, Ceiling 35 ppm - Notes: (NH3, 2005)

DNEL Exposure Limit Values

ethanediol - CAS: 107-21-1
Worker Professional: 35 mg/m3 - Consumer: 7 mg/m3 - Exposure: Human Inhalation -

Frequency: Long Term, systemic effects
Worker Professional: 106 mg/kg - Consumer: 53 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
ammonia ....% - CAS: 1336-21-6
Worker Professional: 14 mg/m3 - Consumer: 36 mg/m3 - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Professional: 6.8 mg/kg - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
PNEC Exposure Limit Values
ethanediol - CAS: 107-21-1
Target: Fresh Water - Value: 10 mg/l
Target: Marine water - Value: 1 mg/l
Target: Freshwater sediments - Value: 37 mg/kg
Target: Marine water sediments - Value: 3.7 mg/kg
Target: 09 - Value: 199.5 mg/l
ammonia ....% - CAS: 1336-21-6
Target: Fresh Water - Value: 0.0011 mg/l
Target: Marine water - Value: 0.011 mg/l
8.2. Exposure controls
Eye protection:
Safety goggles.
Compliant with EN 166
Protection for skin:
protective clothing
Protection for hands:
Neoprene.
Compliant with EN 374.
Thickness: Cuff 0.10 mm; Palm 0.12 mm; Fingers 0.145 mm
Respiratory protection:
Not required under normal conditions of use.

Thermal Hazards:
None
Environmental exposure controls:
None
Appropriate engineering controls:

## SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Properties | Value | Method: | Notes: |
|---|---|---|---|
| Physical state: | Liquid Gas | -- | -- |
| Colour: | White | -- | -- |
| Odour: | Characteristic | -- | -- |
| Melting point/freezing point: | <-100°C (propellant) | Hydrocarbons, C3-4 | -- |
| Boiling point or initial boiling point and boiling range: | > -42°C (propellant) | Hydrocarbons, C3-4 | -- |
| Flammability: | N.A. | -- | -- |

| | | | |
|---|---|---|---|
| Lower and upper explosion limit: | LEL 1.8% (vol); UEL 9.5% (vol) | Internal method | -- |
| Flash point: | <-80°C (propellant) | 07 | -- |
| Auto-ignition temperature: | >400°C | Hydrocarbons, C3-4 | -- |
| Decomposition temperature: | N.A. | -- | -- |
| pH: | 11 | Internal Method | -- |
| Kinematic viscosity: | N.A. | -- | -- |
| Solubility in water: | completa | -- | -- |
| Solubility in oil: | N.A. | -- | -- |
| Partition coefficient n-octanol/water (log value): | N.A. | -- | -- |
| Vapour pressure: | 5,5 bar | Internal method | -- |
| Density and/or relative density: | 0,64-0,69 g/ml | Internal method | -- |
| Relative vapour density: | > 2 (propellant) | Hydrocarbons, C3-4 | -- |
| 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 under normal conditions
10.3. Possibility of hazardous reactions
None
10.4. Conditions to avoid
Excessive heat.
Flames and other sources of ignition.
Strong bases and acids.
10.5. Incompatible materials
Strong oxidising agents, strong reducing agents.

10.6. Hazardous decomposition products

## SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological information of the product:

GOMMA SPRAY AUTO ML300

a) acute toxicity

Not classified

Based on available data, the classification criteria are not met

Test: oecd 10 - Route: Oral 394074.1 mg/kg - Notes: Il prodotto, se portato a contatto con la pelle, provoca notevole infiammazione

b) skin corrosion/irritation

Not classified

Based on available data, the classification criteria are not met

c) serious eye damage/irritation

The product is classified: Eye Irrit. 2 H319

Test: Eye Irritant - Route: EYE Positive

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

Not classified

Based on available data, the classification criteria are not met

i) STOT-repeated exposure

Not classified

Based on available data, the classification criteria are not met

j) aspiration hazard

Not classified

Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

ethanediol - CAS: 107-21-1

a) acute toxicity:

Test: LD50 - Route: Skin - Species: Rat 3500 mg/kg

Test: LD50 - Route: Oral - Species: Rat 7712 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat 5 Ppm - Duration: 4h

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 1064 mg/kg

Test: LD50 - Route: Skin - Species: Rat 2100 mg/kg

ammonia ....% - CAS: 1336-21-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 350 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat = 2000 mg/l - Duration: 4h

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, C3-4; Petroleum gas - CAS: 68476-40-4
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Daphnia = 14.22 mg/l - Duration h: 48
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 2.67 mg/l
Endpoint: EC50 - Species: Daphnia = 3.1 mg/l
Endpoint: EC50 - Species: Algae = 0.266 mg/l
ammonia ....% - CAS: 1336-21-6
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 0.53 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia 1.16 mg/l - Duration h: 24

12.2. Persistence and degradability

None
N.A.

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."

Dispose of waste at suitable centres for the processing or disposal of waste in compliance with the laws and regulations in force and the characteristics of the product at the time of disposal.
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 |
| IATA-Shipping Name: | AEROSOLS, flammable |
| IMDG-Shipping Name: | AEROSOLS, flammable |

14.3. Transport hazard class(es)

| | |
|---|---|
| ADR-Class: | 2 |
| ADR - Hazard identification number: | - |
| IATA-Class: | 2 |
| IATA-Label: | 2.1 |
| IMDG-Class: | 2 |
| Sea (IMO): | 2 |

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,<br>S-U |

14.6. Special precautions for user

| | |
|---|---|
| ADR-Subsidiary hazards: | See SP63 |
| ADR-S.P.: | 190 327 344 625 |
| 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 |
| IMDG-Stowage and handling: | SW1 SW22 |
| 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 40

Restrictions related to the substances contained:

Restriction 75

Volatile Organic compounds - VOCs = 54.90 %
Volatile Organic compounds - VOCs = 549.00 g/Kg
Volatile Organic compounds - VOCs = 356.85 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: P3a

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, C3-4; Petroleum gas

## SECTION 16: Other information

Text of phrases referred to under heading 3:

H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.
H302 Harmful if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

| Hazard class and hazard category | Code | Description |
|---|---|---|
| Flam. Gas 1A | 2.2/1A | Flammable gas, Category 1A |

| | | |
|---|---|---|
| Aerosols 1 | 2.3/1 | Aerosol, Category 1 |
| Press Gas (Liq.) | 2.5/L | Gases under pressure (Liquefied gas) |
| Acute Tox. 4 | 3.1/4/Oral | Acute toxicity (oral), Category 4 |
| Skin Corr. 1B | 3.2/1B | Skin corrosion, Category 1B |
| Skin Irrit. 2 | 3.2/2 | Skin irritation, Category 2 |
| Eye Dam. 1 | 3.3/1 | Serious eye damage, Category 1 |
| Eye Irrit. 2 | 3.3/2 | Eye irritation, Category 2 |
| STOT SE 3 | 3.8/3 | Specific target organ toxicity - single exposure, Category 3 |
| STOT RE 2 | 3.9/2 | Specific target organ toxicity - repeated exposure, Category 2 |
| Aquatic Acute 1 | 4.1/A1 | Acute aquatic hazard, category 1 |
| Aquatic Chronic 2 | 4.1/C2 | Chronic (long term) aquatic hazard, category 2 |

Paragraphs modified from the previous revision:

SECTION 1: Identification of the substance/mixture and of the company/undertaking
SECTION 5: Firefighting measures
SECTION 6: Accidental release measures
SECTION 8: Exposure controls/personal protection
SECTION 9: Physical and chemical properties
SECTION 13: Disposal considerations
SECTION 15: Regulatory information

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 1, H222, H229 | On basis of test data |
| Eye Irrit. 2, H319 | Calculation method |

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 |
| WGK: | German Water Hazard Class. |

# Exposure Scenario, 17/07/2019

| Substance identity | |
|---|---|
| **Chemical name** | IDROCARBURI C3-C4, Miscela (propano,butano,isobutano< 0,1% 1,3-Butadiene) |
| **CAS No.** | 68476-40-4 |
| **EINECS No.** | 270-681-9 |

## Table of contents

# 1. ES 1 Use at industrial site

## 1.1 TITLE SECTION

| | |
|---|---|
| **Exposure Scenario name** | Use as a propellant |
| **Date - Version** | 17/07/2019 - 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 Covered by** | ERC4 |

### Worker Contributing Scenario

| | |
|---|---|
| **CS2 Propellant** | PROC1 - PROC2 - PROC3 - PROC8b - PROC9 - PROC12 |

## 1.2 Conditions of use affecting exposure

### 1.2. CS1: Environment Contributing Scenario: Covered by (ERC4)

| | |
|---|---|
| **Environmental release categories** | Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4) |

### 1.2. CS2: Worker Contributing Scenario: Propellant (PROC1, PROC2, PROC3, PROC8b, PROC9, PROC12)

| | |
|---|---|
| **Process Categories** | 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 dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Use of blowing agents in manufacture of foam (PROC1, PROC2, PROC3, PROC8b, PROC9, PROC12) |

#### *Product (article) characteristics*

**Physical form of product:**

Liquid

**Vapour pressure:**

> 10 kPa

**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

#### *Technical and organisational conditions and measures*

**Technical and organisational measures**

Keep drains in watertight containers while awaiting dismantling or subsequent recycling
Use in contained systems
Ensure operatives are trained to minimise exposures.
Ensure that direct skin contact is avoided.
Clear transfer lines prior to de-coupling.
Provide a good standard of controlled ventilation (10 to 15 air changes per hour).
Drain down and flush system prior to equipment break-in or maintenance.

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

**Personal protection**

Wear suitable respiratory protection.

### *Other conditions affecting worker exposure*

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

## 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:**

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.