

## Safety Data Sheet dated 4/7/2019, version 7

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

1.1. Product identifier

Mixture identification:

Trade name: GOMMA AUTO SPRAY ML 400

Trade code: 8470

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

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

Centro Antiveleni di Pavia IRCCS- Fondazione Maugeri tel. +39 (0)382 24444 (h24; it, en)

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

In Ireland: Beaumont Hospital - National Poisons Information Centre 01 809 2166 (7days, 8:00 -

22:00)

In South Africa: Poison Information Helpline 0861 555 777

#### **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, Skin Irrit. 2, Causes skin irritation.

Adverse physicochemical, human health and environmental effects:

Il prodotto, se portato a contatto con la pelle, provoca notevole infiammazione con eritemi, escare o edemi.

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

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

H315 Causes skin 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 label before use.

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.

P280 Wear protective gloves/clothing and eye/face protection.

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

vPvB Substances: None - PBT Substances: None

Other Hazards:

Aerosol che s'infiamma con estrema facilità anche a basse temperature, pericolo di diffusione d'incendio.

### **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:

>= 60% - < 70% Hydrocarbons, C3-4

REACH No.: 01-2119486557-22, Index number: 649-199-00-1, CAS: 68476-40-4, EC:

270-681-9

2.2/1 Flam. Gas 1 H220

♦ 2.5/L Press. Gas (Liq.) H280

DECLK (CLP)\*

>= 3% - < 5% ethylene glycol

REACH No.: 01-2119456816-28, Index number: 603-027-00-1, CAS: 107-21-1, EC: 203-473-3

◆ 3.1/4/Oral Acute Tox. 4 H302

♦ 3.9/2 STOT RE 2 H373

>= 0.5% - < 1% Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides

REACH No.: 01-2119490061-47, CAS: 308062-28-4, EC: 931-292-6

◆ 3.1/4/Oral Acute Tox. 4 H302

◆ 3.2/2 Skin Irrit. 2 H315

♦ 3.3/1 Eye Dam. 1 H318

4.1/A1 Aquatic Acute 1 H400

4.1/C2 Aquatic Chronic 2 H411

>= 0.5% - < 1% ammonia, acqueus solution

REACH No.: 01-2119488776-14, Index number: 007-001-01-2, CAS: 1336-21-6, EC: 215-647-6

♦ 3.2/1B Skin Corr. 1B H314

4.1/A1 Aquatic Acute 1 H400

Specific Concentration Limits:

C >= 5%: STOT SE 3 H335

\*DECLK (CLP): Substance classified in accordance with Note K, Annex VI of EC Regulation (EC) 1272/2008. The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w 1,3-butadiene (Einecs No 203-450-8). If the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P210-P403 should apply. This note applies only to certain complex oil-derived substances in Part 3.



#### **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 contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

#### **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

Wash with plenty of water.

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 - CAS: 68476-40-4

MAK - TWA: 2400 mg/m3, 1000 ppm

TLV TWA - 1900 mg/m3, 800 ppm ethanediol - CAS: 107-21-1

20101.06 - 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

ACGIH - TWA(8h): 25 ppm - STEL: 50 ppm - Notes: (V), A4 - URT irr

ammonia, acqueus solution - 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 Industry: 35 mg/m3 - Worker Professional: 35 mg/m3 - Consumer: 7 mg/m3 -

Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Industry: 106 mg/kg - Worker Professional: 106 mg/kg - Consumer: 53 mg/kg -

Exposure: Human Dermal - Frequency: Long Term, systemic effects

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

Worker Professional: 11 mg/kg - Consumer: 5.5 mg/kg - Exposure: Human Dermal -

Frequency: Long Term, systemic effects

Worker Professional: 6.2 mg/m3 - Consumer: 1.53 mg/m3 - Exposure: Human Inhalation

- Frequency: Long Term, systemic effects

Consumer: 0.44 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic



effects

PNEC Exposure Limit Values ethanediol - CAS: 107-21-1

Target: Fresh Water - Value: 10 mg/l

Target: 08 - Value: 10 mg/l

Target: Marine water - Value: 1 mg/l Target: 09 - Value: 199.5 mg/l

Target: Freshwater sediments - Value: 3.7 mg/kg

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

Target: Fresh Water - Value: 0.0335 mg/l Target: Marine water - Value: 0.00335 mg/l

Target: Freshwater sediments - Value: 5.24 mg/kg Target: Marine water sediments - Value: 0.524 mg/kg

Target: Soil (agricultural) - Value: 1.02 mg/kg

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.

Compliant with EN 166

Protection for skin:

protective clothing

Protection for hands:

Neoprene.

Compliant with EN 374.

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: |
|--|------------------------------|---------|--------|
| Appearance and colour:                   | Liquid White sotto pressione |         |        |
| Odour:                                   | Characteristic               |         |        |
| Odour threshold:                         | N.A.                         |         |        |
| pH:                                      | N.A.                         |         |        |
| Melting point / freezing point:          | <-100°C<br>(propellant)      |         |        |
| Initial boiling point and boiling range: | > -42°C<br>(propellant)      |         |        |
| Flash point:                             | <-80°C<br>(propellant)       |         |        |



| Evaporation rate:                             | N.A.                                 |   |  |
|---|--------------------------------------|---|--|
| Solid/gas flammability:                       | N.A.                                 |   |  |
| Upper/lower flammability or explosive limits: | LEL 1.8%<br>(vol); UEL 9.5%<br>(vol) |   |  |
| Vapour pressure:                              | 5,5 bar                              | - |  |
| Vapour density:                               | > 2<br>(propellant)                  |   |  |
| Relative density:                             | 0,60-0,70 g/<br>ml                   |   |  |
| Solubility in water:                          | completa                             |   |  |
| Solubility in oil:                            | N.A.                                 |   |  |
| Partition coefficient (n-octanol/water):      | N.A.                                 |   |  |
| Auto-ignition temperature:                    | >400°C                               | - |  |
| Decomposition temperature:                    | N.A.                                 |   |  |
| Viscosity:                                    | N.A.                                 |   |  |
| Explosive properties:                         | N.A.                                 |   |  |
| Oxidizing properties:                         | N.A.                                 |   |  |

### 9.2. Other information

| Properties                           | Value | Method: | Notes: |
|--------------------------------------|-------|---------|--------|
| Miscibility:                         | N.A.  |         |        |
| Fat Solubility:                      | N.A.  |         |        |
| Conductivity:                        | N.A.  |         |        |
| Substance Groups relevant properties | N.A.  |         |        |

NA=not applicable

## **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

8470/7

Page n. 6 of 12



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 toxicological effects
Toxicological information of the product:
GOMMA AUTO SPRAY ML 400

a) acute toxicity

Based on available data, the classification criteria are not met

b) skin corrosion/irritation

The product is classified: Skin Irrit. 2 H315

Test: Skin Irritant - Route: Skin Positive - Notes: Il prodotto, se portato a contatto con la pelle, provoca notevole infiammazione

c) serious eye damage/irritation

Based on available data, the classification criteria are not met d) respiratory or skin sensitisation

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

Based on available data, the classification criteria are not met f) carcinogenicity

Based on available data, the classification criteria are not met g) reproductive toxicity

Based on available data, the classification criteria are not met h) STOT-single exposure

Based on available data, the classification criteria are not met i) STOT-repeated exposure

Based on available data, the classification criteria are not met j) aspiration hazard

Based on available data, the classification criteria are not met Adverse health effects

Prolonged exposure to the product may cause drowsiness and dizziness.

Toxicological information of the main substances found in the product:

ethanediol - CAS: 107-21-1

a) acute toxicity:

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

Test: LD50 - Route: Skin - Species: Mouse > 3500 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 2.5 mg/l - Duration: 4h

Test: LD50 - Route: Skin - Species: Rabbit = 2000 mg/kg

g) reproductive toxicity:

Test: NOAEL(C) - Species: Mouse 1000 mg/kg



i) STOT-repeated exposure:

Test: NOAEL(C) - Route: Skin - Species: CANE 2200-4400 mg/kg - Source: OECD 410 -

Notes: Organo bersaglio/Target organ: Rene/kidney

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

a) acute toxicity:

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

ammonia, acqueus solution - 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

### **SECTION 12: Ecological information**

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Hydrocarbons, C3-4 - CAS: 68476-40-4

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Daphnia = 14.22 mg/l - Duration h: 48

ethanediol - CAS: 107-21-1

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 72860 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48 Endpoint: EC50 - Species: Algae 6500-13000 mg/l - Duration h: 96

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish 15380 mg/l - Duration h: 168

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: CE6 - Species: Algae = 0.19 mg/l

b) Aquatic chronic toxicity:

Endpoint: NOEC 0.067 mg/l

ammonia, acqueus solution - 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. 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:

Reuse if possible. Act in accordance with the local and national laws in force.

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

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

14.2. UN proper shipping name

ADR-Shipping Name: AEROSOLS, flammable

ADR-Shipping Name: AEROSOLS

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

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-EmS: F-D,
S-U

IMDG-Subsidiary hazards: See SP63
IMDG-Stowage and handling: SW1 SW22
IMDG-Segregation: SG69

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No

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) 2015/830

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)

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:

No restriction.

Volatile Organic compounds - VOCs = 64.90 %

Volatile Organic compounds - VOCs = 649.00 g/Kg

Volatile Organic compounds - VOCs = 421.85 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:

None

#### **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 (kidneys) through prolonged or repeated exposure if swallowed.

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 1                      | 2.2/1 | Flammable gas, Category 1            |
| Aerosols 1                       | 2.3/1 | Aerosol, Category 1                  |
| Press. Gas (Lig.)                | 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                                  |
| STOT SE 3         | 3.8/3      | Specific target organ toxicity - single exposure,<br>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 3: Composition/information on ingredients

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

SECTION 11: Toxicological information SECTION 12: Ecological information SECTION 14: Transport information SECTION 16: Other 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    |
| Skin Irrit. 2, H315                                       | 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).

8470/7

Page n. 11 of 12



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.