

Safety Data Sheet 10-8590

420 MOD BIT ADHESIVE-BRUSH GRADE

Safety Data Sheet dated: 01/23/2023 - version 2

Date of first edition: 11/11/2022



1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: 420 MOD BIT ADHESIVE-BRUSH GRADE

Trade code: PLY0110

Recommended use of the chemical and restrictions on use

Recommended use: Bituminous adhesive solvent based

Restrictions on use: Not available

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MULE HIDE PRODUCTS CO. INC.

1195 PRINCE HALL DRIVE, BELOIT, WI, 53511. USA

Phone: 800-786-1492

Responsible: www.mulehide.com

Emergency 24 hour numbers:

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887 Emergency Transport CANUTEC (Canada) 1-613-996-6666

2. HAZARD(S) IDENTIFICATION



Classification of the chemical

Flammable Liquids — Category 3

Skin irritation, Category 2

Eye irritation, Category 2A

Germ cell mutagenicity, Category 1B

Carcinogenicity, Category 1A

Specific target organ toxicity following repeated exposure, Category 1

Acute aquatic hazard, category 3

Chronic (long term) aquatic hazard, category 3

Flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

May cause genetic defects if inhaled, in contact with skin and if swallowed.

May cause cancer if inhaled, in contact with skin and if swallowed.

Causes damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

Harmful to aquatic life

Harmful to aquatic life with long lasting effects.

Label elements

Pictograms and Signal Words



Danger

Hazard statements

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H340 May cause genetic defects if inhaled, in contact with skin and if swallowed.

H350 May cause cancer if inhaled, in contact with skin and if swallowed.

H372 Causes damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed.

H402 Harmful to aquatic life

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

| | |
|----------------|--|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat/sparks/open flames/hot surfaces. — No smoking. |
| P233 | Keep container tightly closed. |
| P240 | Ground/bond container and receiving equipment. |
| P241 | Use explosion-proof electrical/ventilating/lighting equipment. |
| P242 | Use only non-sparking tools. |
| P243 | Take precautionary measures against static discharge. |
| P260 | Do not breathe mist/vapours/spray. |
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P314 | Get medical advice/attention if you feel unwell. |
| P321 | Specific treatment (see supplementary instructions on this label) |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P370+P378 | In case of fire, use a dry powder fire extinguisher to extinguish. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with applicable regulations. |

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of the hardened product may create a silica dust hazard)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not Relevant

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

List of components

| Qty | Name | Ident. Numb. | Classification | Registration Number |
|---------|---|--|--|---------------------|
| 25-50 % | petroleum hydrocarbons; Stoddard Solvent | CAS:8052-41-3 EC:232-489-3 Index:649-345-00-4 | Flam. Liq. 3, H226; STOT RE 1, H372; Asp. Tox. 1, H304; Muta. 1B, H340; Carc. 1B, H350 | |
| 5-10 % | asphalt; bitumen | CAS:8052-42-4 EC:232-490-9 | Carc. 2, H351 | |
| 5-10 % | naphthenic oil; Low boiling point naphtha - unspecified | CAS:64742-95-6 EC:265-199-0 Index:649-356-00-4 | Asp. Tox. 1, H304; Flam. Liq. 3, H226; Carc. 1B, H350 | |
| 1-2.5 % | 1-propanamine, 3-(isodecyloxy)-, acetate; 3-(Isodecyloxy)propylammonium acetate | CAS:28701-67-9 EC:249-166-8 | Acute Tox. 4, H302; Skin Corr. 1B, H314; Aquatic Chronic 1, H410 | |

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- Remove contaminated clothing immediately and dispose of 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 ophthalmologist immediately.
- Protect uninjured eye.

In case of Ingestion:

- Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

- If breathing is irregular or stopped, administer artificial respiration.
- In case of inhalation, consult a doctor immediately and show him packing or label.

Most important symptoms/effects, acute and delayed

Eye irritation
Eye damages
Skin Irritation
Erythema

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:

(see paragraph 4.1)

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

- Do not inhale explosion and combustion gases.
- Burning produces heavy smoke.
- Hazardous combustion products: Not available
- Explosive properties: Not available
- Oxidizing properties: Not available

Special protective equipment and precautions for fire-fighters

- 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.
-

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Wear personal protection equipment.
- Remove all sources of ignition.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.
- Provide adequate ventilation.
- Use appropriate respiratory protection.
- Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
- Limit leakages with earth or sand.

Methods and material for containment and cleaning up

- Suitable material for taking up: absorbing material, organic, sand
 - Retain contaminated washing water and dispose it.
-

7. HANDLING AND STORAGE

Precautions for safe handling

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

Exercise the greatest care when handling or opening the container.
 Use localized ventilation system.
 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.
 Contaminated clothing should be changed before entering eating areas.
 Do not eat or drink while working.
 See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Handle in a well ventilated place.
 Always keep in a well ventilated place.
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
 Store in a well-ventilated place. Keep cool.
 Avoid direct exposure to sunlight.
 Opened containers must be carefully resealed and kept upright to prevent leakage.
 Flammable mixtures may accumulate within the headspace of containers at room temperature.
 Storage at higher temperatures requires an appropriate evaluation of preventive and protection measures to be adopted.
 Storage temperature must be defined on the basis of a proper risk evaluation. Refer to other sections for additional information.
 Avoid accumulating electrostatic charge.
 Keep away from food, drink and feed.
 Electrical installations / working materials must comply with the technological safety standards.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.
 Safety electric system.

Storage temperature: Not available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Community Occupational Exposure Limits (OEL)

| | OEL Type | Country | Occupational Exposure Limit |
|---|-----------------|-----------------|--|
| petroleum hydrocarbons; Stoddard Solvent CAS: 8052-41-3 | OSHA | | Long Term: 2900 mg/m3 - 500 ppm |
| | ACGIH | | Long Term: 100 ppm CNS impairment;eye, kidney and skin damage;nausea; |
| | ACGIH | | Long Term: 100 ppm CNS impairment;eye, kidney and skin damage;nausea |
| asphalt; bitumen CAS: 8052-42-4 | ACGIH | | Long Term: 0.5 mg/m3 A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free);eye and upper respiratory tract irritation (fume); |
| | MAK | GERMANY | Long Term: 1.5 mg/m3 |
| | ACGIH | | Long Term: 0.5 mg/m3 A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free);eye and upper respiratory tract irritation (fume) |
| silica sand; quartz CAS: 14808-60-7 | MAK | SWITZERLAN D | Long Term: 10 mg/m3 |
| | ACGIH | | Long Term: 0.025 mg/m3 A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis; |
| | ACGIH | | Long Term: 0.025 mg/m3 A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis |
| | MAK | AUSTRIA | Long Term: 0.15 mg/m3 |
| | MAK | SWITZERLAN D | Long Term: 0.15 mg/m3 |

Biological limit values

asphalt; bitumen
CAS: 8052-42-4

Biological Indicator: 1-Hydroxypyrene; Sampling Period: End of turn; End of working week
Medium: Urine
Remark: Not Quantitative

Biological Indicator: 1-Hydroxypyrene; Sampling Period: End of turn; End of working week
Value: 2.5 µg/L; Medium: Urine
Remark: Background

Biological Indicator: 3-Hydroxybenzo(a)pyrene with hydrolysis; Sampling Period: End of turn; End of working week
Medium: Urine
Remark: Not Quantitative

Appropriate engineering controls: Not available

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; 29 CFR 1910.138 - ANSI/ISEA 105:

Polychloroprene - CR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Nitrile rubber - NBR: thickness $\geq 0,35\text{mm}$; breakthrough time $\geq 480\text{min}$.

Butyl rubber - IIR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Fluorinated rubber - FKM: thickness $\geq 0,4\text{mm}$; breakthrough time $\geq 480\text{min}$.

Use impervious gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to 29 CFR 1910.134 - CSA Z94.4 for information on selection and use of appropriate respiratory protection equipment.

Use adequate protective respiratory equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: liquid

Odour: hydrocarbons like

Odour threshold: No data available

pH: No data available

Melting point / freezing point: No data available

Initial boiling point and boiling range: 179 °C (354 °F)

Flash point: 40.5 °C (104.9 °F)

Evaporation rate: No data available

Upper/lower flammability or explosive limits: 4.05 % w/w

Vapour density: >1

Vapour pressure: 2.00 (kPa 50°C)

Relative density: 0.96 g/cm³

Solubility in water: Insoluble

Solubility in oil: No data available

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Solid/gas flammability: data not applicable

Other information

Substance Groups relevant properties Not normally reactive

Miscibility: No data available

Fat Solubility: No data available

Conductivity: No data available

10. STABILITY AND REACTIVITY

Reactivity

Stable

It may generate dangerous reactions (See subsections below)

Chemical stability

It may generate dangerous reactions (See subsections below)

Possibility of hazardous reactions

It may catch fire on contact with oxidising mineral acids, and powerful oxidising agents.

Conditions to avoid

Heat and open flames.

Avoid accumulating electrostatic charge.

Incompatible materials

Water

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

Hazardous decomposition products

Develop toxic gases when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological Information of the Preparation

| | |
|--------------------------------------|---|
| a) acute toxicity | Not classified Based on available data, the classification criteria are not met |
| b) skin corrosion/irritation | The product is classified: Skin irritation, Category 2(H315) |
| c) serious eye damage/irritation | The product is classified: Eye irritation, Category 2A(H319) |
| d) respiratory or skin sensitisation | Not classified Based on available data, the classification criteria are not met |
| e) germ cell mutagenicity | The product is classified: Germ cell mutagenicity, Category 1B(H340) |
| f) carcinogenicity | The product is classified: Carcinogenicity, Category 1A(H350) |
| 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 | The product is classified: Specific target organ toxicity following repeated exposure, Category 1(H372) |
| j) aspiration hazard | Not classified Based on available data, the classification criteria are not met |

Toxicological information on main components of the mixture:

| | | |
|--|-------------------|--|
| petroleum hydrocarbons; Stoddard Solvent | a) acute toxicity | LD50 Skin Rabbit > 3000 mg/kg LC50 Inhalation Rat > 5.5 mg/l 4h |
| asphalt; bitumen | a) acute toxicity | LD50 Skin Rabbit > 2000 mg/kg LD50 Oral Rat > 5000 mg/kg LC50 Inhalation Rat > 94.4 mg/m ³ 4.5h LD50 Oral Rat > 5000 mg/kg |
| naphthenic oil; Low boiling point naphtha - unspecified | a) acute toxicity | LD50 Skin Rabbit > 2000 mg/kg LC50 Inhalation Rat = 3400 ppm 4h LD50 Oral Rat = 8400 mg/kg |
| 1-propanamine, 3- (isodecyloxy)-, acetate; 3- (Isodecyloxy) propylammonium acetate | a) acute toxicity | LD50 Oral Rat = 1216 mg/kg |

silica sand; quartz a) acute toxicity LD50 Oral Rat = 500 mg/kg

Substance(s) listed on the IARC Monographs:

asphalt; bitumen Group 2B
silica sand; quartz Group 1

Substance(s) listed as OSHA Carcinogen(s):

asphalt; bitumen
silica sand; quartz

Substance(s) listed as NIOSH Carcinogen(s):

asphalt; bitumen
silica sand; quartz

Substance(s) listed on the NTP report on Carcinogens:

silica sand; quartz

12. ECOLOGICAL INFORMATION

Toxicity

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

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

The product is classified: Acute aquatic hazard, category 3(H402), Chronic (long term) aquatic hazard, category 3(H412)

List of Eco-Toxicological properties of the components

| Component | Ident. Numb. | Ecotox Data |
|---|---|--|
| naphthenic oil; Low boiling point naphtha - unspecified | CAS: 64742-95-6 - EINECS: 265-199-0 - INDEX: 649-356-00-4 | G : LC50 Avian Colinus virginianus > 6500 ppm 5d IUCLID G : LD50 Avian Colinus virginianus > 2250 mg/kg IUCLID a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 9.22 mg/L 96h IUCLID a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 6.14 mg/L 48h IUCLID |
| silica sand; quartz | CAS: 14808-60-7 - EINECS: 238-878-4 | a) Aquatic acute toxicity : LC50 carp > 10000 mg/L 72h |

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

14. TRANSPORT INFORMATION

UN number

DOT-UN Number: NA1993

ADR-UN number: 1993

IATA-Un number: 1993

IMDG-Un number: 1993

UN proper shipping name

DOT-Proper Shipping Name: COMBUSTIBLE LIQUID, N.O.S. (solvent naphtha - hydrocarbons, C9, aromatics)

(Not regulated for US DOT if shipped by road in non-bulk containers of 119 gallons or less)

ADR-Shipping Name: FLAMMABLE LIQUID, N.O.S. (having a flash-point below 23 °C and viscous according to 2.2.3.1.4) (vapour pressure at 50 °C more than 110 kPa, boiling point of more than 35 °C) (solvent naphtha - hydrocarbons, C9, aromatics)

IATA-Technical name: FLAMMABLE LIQUID, N.O.S. (solvent naphtha - hydrocarbons, C9, aromatics)

IMDG-Technical name: FLAMMABLE LIQUID, N.O.S. (solvent naphtha - hydrocarbons, C9, aromatics)

Transport hazard class(es)

DOT-Hazard Class: COMBUSTIBLE

ADR-Class: 3

IATA-Class: 3

IMDG-Class: 3

Packing group

DOT-Packing group: III

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

Environmental hazards

Marine pollutant: No

Environmental Pollutant: Not Applicable

DOT-RQ: No

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not Applicable

Special precautions

Department of Transportation (DOT):

DOT-Special Provision(s): 148, IB3, T1, TP1

DOT-Label(s): NONE

DOT-Symbol: D G

DOT-Cargo Aircraft: 220 L

DOT-Passenger Aircraft: 60 L

DOT-Bulk: 241

DOT-Non-Bulk: 203

Road and Rail (ADR-RID):

ADR-Label: 3

ADR-Hazard identification number: 30

ADR-Transport category (Tunnel restriction code): 3 (D/E)

Air (IATA):

IATA-Passenger Aircraft: 355

IATA-Cargo Aircraft: 366

IATA-Label: 3

IATA-Subsidiary hazards: -

IATA-Erg: 3L

IATA-Special Provisions: A3

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 223 274 955

IMDG-Page: N/A

IMDG-Label: N/A

IMDG-EMS: F-E, S-E

IMDG-MFAG: N/A

Pursuant to 49 CFR 173.120(b)(2) and 49 CFR 173.150(f) a flammable liquid with a flash point at or above 100 degrees Fahrenheit may be reclassified as a combustible liquid for transportation within the U.S. by motor vehicle or rail only.

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory:

All the components are listed on the TSCA inventory

TSCA listed substances:

petroleum hydrocarbons; Stoddard is listed in TSCA Section 8b
Solvent

asphalt; bitumen is listed in TSCA Section 8b

naphthenic oil; Low boiling point is listed in TSCA Section 8b
naphtha - unspecified

1-propanamine, 3-(isodecyloxy)-, is listed in TSCA Section 8b
acetate; 3-
(Isodecyloxy)propylammonium
acetate

silica sand; quartz is listed in TSCA Section 8b

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

No substances listed

Section 304 - Hazardous substances:

No substances listed

Section 313 - Toxic chemical list:

No substances listed

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

No substances listed

CAA - Clean Air Act

CAA listed substances:

No substances listed

CWA - Clean Water Act

CWA listed substances:

No substances listed

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

silica sand; quartz Listed as carcinogen

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

petroleum hydrocarbons; Stoddard Solvent

asphalt; bitumen

silica sand; quartz

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

petroleum hydrocarbons; Stoddard Solvent
asphalt; bitumen
silica sand; quartz

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

petroleum hydrocarbons; Stoddard Solvent
asphalt; bitumen
silica sand; quartz

Canada - Federal regulations

DSL - Domestic Substances List

DSL (Domestic Substances List)

All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

NDSL (Non Domestic Substances List)

No substances listed

NPRI - National Pollutant Release Inventory

NPRI (National Pollutant Release Inventory) - List of substances listed.

No substances listed

16. OTHER INFORMATION

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Additional classification information

NFPA Health: 1 = Slight
NFPA Flammability: 2 = Combustible liquid
NFPA Reactivity: 0 = Minimal
NFPA Special Risk: N.A.



Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

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

This SDS cancels and replaces any preceding release.

| Code | Description |
|-------------|---|
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H340 | May cause genetic defects. |
| H350 | May cause cancer. |
| H351 | Suspected of causing cancer. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H410 | Very toxic to aquatic life with long lasting effects. |

| Code | Hazard class and hazard category | Description |
|-------------|---|--|
| A.1/4/Oral | Acute Tox. 4 | Acute toxicity (oral), Category 4 |
| A.10/1 | Asp. Tox. 1 | Aspiration hazard, Category 1 |
| A.2/1B | Skin Corr. 1B | Skin corrosion, Category 1B |
| A.5/1B | Muta. 1B | Germ cell mutagenicity, Category 1B |
| A.6/1A | Carc. 1A | Carcinogenicity, Category 1A |
| A.6/1B | Carc. 1B | Carcinogenicity, Category 1B |
| A.6/2 | Carc. 2 | Carcinogenicity, Category 2 |
| A.9/1 | STOT RE 1 | Specific target organ toxicity following repeated exposure, Category 1 |
| B.6/3 | Flam. Liq. 3 | Flammable Liquids — Category 3 |
| US-HAE/C1 | Aquatic Chronic 1 | Chronic (long term) aquatic hazard, category 1 |

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
IMDG: International Maritime Code for Dangerous Goods.
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).
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
CLP: Classification, Labeling, Packaging.
EINECS: European Inventory of Existing Commercial Chemical Substances.
INCI: International Nomenclature of Cosmetic Ingredients.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
GefStoffVO: Ordinance on Hazardous Substances, Germany.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
DNEL: Derived No Effect Level.
PNEC: Predicted No Effect Concentration.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
WGK: German Water Hazard Class.
KSt: Explosion coefficient.

Paragraphs modified from the previous revision:

- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 11. TOXICOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION