SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and
Regulation (EC) No. 1272/2008

Revision date 31-10-2026 **Revision Number** 2

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

1.1. Product identifier

Product Code FO20036640

Material number(s): FO20036640WE

Product Name HOT-TAK SPRAY ADHESIVE 600ML

Other means of identification

Unique Formula Identifier (UFI) DRM3-308G-800T-DXHR

Substance/mixture Mixture

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

Recommended use For industrial use only

Uses advised against None

1.3. Details of the supplier of the safety data sheet

Supplier
Avient Luxembourg S.à.r.l.
19 Route de Bastogne, L-9638
Pommerloch, Luxembourg
Product Stewardship
+352 26 90 50 35

For further information, please contact

E-mail address SDS.MB.Europe@avient.com

Company Phone Number +352 26 90 50 35

1.4. Emergency telephone number

Emergency Telephone (Chemtrec 24h) +44 20 3885 0382

Poison control center phone number - §45 - (EC)1272/2008	
Europe	**112**
Austria	Austria Poison Information Center: +43 1 406 43 43 Emergency phone number: 112
Belgium	Belgium Emergency phone number: +32 (0) 70 245 245 Emergency phone number: 112
Bulgaria	Bulgaria Emergency phone number : Hospital for Active Medical Treatment and Emergency Medicine “N.I.Pirogov” Emergency number/ fax: +359 2 9154 233

Croatia	Croatia Emergency phone number: Poison Control Center: +385 (01) 23 48 342 Emergency phone number: 112
Cyprus	Cyprus Emergency phone number: Poison Control Center: 1401
Czech Republic	Czech Republic Toxicological Information Center (TIS), Clinic of Occupational Medicine: +420 224 919 293 or +420 224 915 402 Emergency phone number: 112
Denmark	Denmark Emergency phone number: Bispebjerg Hospital: +45 82 12 12 12 Emergency phone number: 112
Estonia	Estonia Emergency phone number: Poison Information Center: 16662 Emergency phone number: 112
Finland	Finland Emergency phone number: Poison Information Center: 0800 147 111 Emergency phone number: 112
France	France: National Poison center phone number (ORFILA) : (33) 1 45 42 59 59 24/24-7/7 emergency number : ANGERS: 02 41 48 21 21 BORDEAUX: 05 56 96 40 80 LILLE: 08 00 59 59 59 LYON: 04 72 11 69 11 MARSEILLE: 04 91 75 25 25 NANCY: 03 83 22 50 50 PARIS: 01 40 05 48 48 TOULOUSE: 05 61 77 74 47
Germany	Germany Emergency phone number: +49 30 19240 (Giftnotruf Berlin)
Greece	Greece Emergency phone number: Poison Center: +30 210 77 93 777 Emergency phone number: 112
Hungary	Hungary Emergency phone number: ETTSZ (Health Toxicological Information Service): +36 80 201 199 Emergency phone number: 112
Ireland	Ireland Emergency phone number: National Poisons Information Centre, Beaumont Hospital: +353 (0)1 809 2166 (from 8.00 to 22.00)
Italy	Italy Emergency phone number: Bambino Gesù Pediatric Hospital, Rome, Piazza Sant'Onofrio: 06 6859 3726 University Hospital Foggia, Viale Luigi Pinto: 800 183 459 A. Cardarelli Hospital, Naples, Via A. Cardarelli: 081 545 3333 Umberto I Hospital, Rome, Viale del Policlinico: 06 4997 8000 A. Gemelli Hospital, Rome, Largo Agostino Gemelli: 06 305 4343 Careggi Hospital, Medical Toxicology Unit, Florence, Largo Brambilla: 055 794 7819 National Center for Toxicological Information, Pavia, Via Salvatore Maugeri: 0382 24444 Niguarda Ca' Granda, Milan, Piazza Maggiore Hospital: 02 6610 1029 Giovanni XXII Hospital, Bergamo, Piazza OMS: 00 883 300 Verona Integrated Hospital Trust, Piazzale Aristide Stefani 1: 800 011 858 Emergency phone number: 112
Latvia	Latvia Emergency phone number: Toxicology and Sepsis Clinic, Poison and Drug Information Center: +371 67042473 Emergency phone number: 112
Lithuania	Lithuania Emergency phone number: Lithuanian Poison Control and Information Center:

	+370(5) 2362052 or +370 687 53378 Emergency phone number: 112
Luxembourg	Luxembourg Emergency phone number: (+352) 8002 5500 Emergency phone number: 112
Malta	Malta Accident and Emergency Department phone number: 2545 4030
Netherlands	Netherlands Emergency phone number: NVIC Poison Center: +31 (0)88 755 8000 (For professionals only in case of acute poisoning).
Norway	Norway Poison Center Emergency phone number: +47 22 59 13 00
Poland	Poland Poison Information Center (Warsaw): +48226196654 Pomeranian Center of Toxicology (Gdansk): +48586821939 Sosnowiec Poison Center: +48323682210 Emergency phone number: 112
Portugal	Portugal Emergency phone number: Antivenom Information Center (CIAV): +351 800 250 250 Emergency phone number: 112
Romania	Romania Emergency phone number: Toxicological Information Center: +40 21 599 2300 Emergency phone number: 021 112
Slovakia	Slovakia Emergency phone number: National Toxicological Information Center (NTIC): 00421 (0) 2 5477 4166 Emergency phone number: 112
Slovenia	Slovenia Emergency phone number: 112
Spain	Spain Emergency phone number + 34 91 562 04 20 (for toxic emergencies only) Emergency phone number: 112
Sweden	Sweden Emergency phone number: 010-456 6700 Emergency phone number: 112
Switzerland	Switzerland Emergency phone number: 145 Outside Switzerland: +41 44 251 51 51

SECTION 2: Hazards identification

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions.

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosols	Category 1 - (H222, H229)
Skin irritation	Category 2 - (H315)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Category 3 Target organ effects: Narcotic effects.	
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)

Aspiration hazard	Category 1 - (H304)
Hazardous to the aquatic environment - chronic	Category 2 - (H411)

2.2. Label elements

Contains NOTE_P_Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics; Hydrocarbons, C6, isoalkanes, <5% n-hexane; Hexane; Cyclohexane



Signal word

Danger

Hazard statements

H222 - Extremely flammable aerosol. H229 - Pressurized container: May burst if heated.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H372 - Causes damage to organs through prolonged or repeated exposure.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

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.
P260 - Do not breathe dust, fume, gas, mist, vapors and spray.
P273 - Avoid release to the environment.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P331 - Do NOT induce vomiting.
P391 - Collect spillage.
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Additional information

This product requires child resistant fastenings if supplied to the general public. This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

Other hazards Harmful to aquatic life.

PBT or vPvB properties The mixture does not contain any substances meeting the PBT or vPvB criteria according to Regulation (EC) No 1907/2006, Annex XIII.

Endocrine Disruptor Information The mixture does not contain substances >= 0.1% that have endocrine disrupting properties according to Regulation (EC) No 1907/2006, Article 59(1) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical name	Weight-%	REACH registration number	EC No. (Index No.)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
NOTE_K_Petroleum gases, liquefied <0.1% 1,3-butadiene substance (CAS #: 68476-85-7)	40 - 60%	No data available	-	Flam. Gas 1 (H220) Press. Gas (H280)	-	-	-	K
NOTE_P_Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (CAS #: 64742-49-0)	20 - 40%	No data available	-	Flam. Liq. 2 (H225) par Skin Irrit. 2 (H315) par STOT SE 3 (H336) par Asp. Tox. 1 (H304) par Aquatic Chronic 2 (H411)	-	-	-	P
Methane, dimethoxy- (CAS #: 109-87-5)	20 - 40%	No data available	203-714-2	Flam. Liq. 2 (H225)	-	-	-	-
Hydrocarbons, C6, isoalkanes, <5% n-hexane (CAS #: -)	5 - 10%	No data available	-	Flam. Liq. 2 (H225) par Skin Irrit. 2 (H315) par STOT SE 3 (H336) par Asp. Tox. 1 (H304) par Aquatic Chronic 2 (H411)	-	-	-	EC_931-254-9
Hexane (CAS #: 110-54-3)	1 - 3%	No data available	203-777-6 (601-037-00-0)	Skin Irrit. 2 (H315) Repr. 2 (H361f) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) Flam. Liq. 2 (H225) STOT RE 1 (H372)	STOT RE 1 :: C ≥ 5 %	-	-	-
Cyclohexane (CAS #: 110-82-7)	1 - 3%	01-2119463273-41-xxxx	203-806-2 (601-017-00-1)	STOT SE 3 (H336) Skin Irrit. 2 (H315) Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400)	-	-	1	-

CLP Notes

Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note P - The harmonized 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.

Note 1 - The concentration stated or, in the absence of such concentrations, the generic concentrations set out in this Regulation are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture.

Note 2 - The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.

Note 3 - The concentration stated is the percentage by weight of chromate ions dissolved in water calculated with reference to the total weight of the mixture.

Note 5 - The concentration limits for gaseous mixtures are expressed as volume per volume percentage.

Note 9 - The classification as a mutagen shall apply unless it can be shown that the maximum theoretical concentration of

releasable formaldehyde, irrespective of the source, in the mixture as placed on the market is less than 1 %.

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Methane, dimethoxy- (109-87-5)	5005	5005	5.1	21	20001
Hexane (110-54-3)	No data available	3000	No data available	No data available	No data available
Cyclohexane (110-82-7)	No data available	2002	No data available	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical attention.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

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

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Erythema (skin redness). May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Effects of Exposure Causes damage to organs through prolonged or repeated exposure.

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

Note to physicians Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray.

Unsuitable extinguishing media Do not use water jetstream. DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated.

Hazardous combustion products Decomposition products can include and are not limited to:, Carbon monoxide, Carbon dioxide (CO2)

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Avoid breathing dust, fume, gas, mist, vapors and spray.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Flood with water to complete polymerization and scrape off floor.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Use personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture. Avoid breathing vapors or mists. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear protective gloves, eye protection and face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Store locked up. Keep out of the reach of children. Store away from other materials.

Storage class (TRGS 510) Storage class 2B.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union (Directives 98/24/EC and 2004/37/EC)
Hexane (110-54-3)	TWA: 20 ppm; TWA: 72 mg/m^3;

Cyclohexane (110-82-7)		TWA: 200 ppm; TWA: 700 mg/m³;		
Chemical name	Austria (GKV BGBl. II Nr. 330/2024)	Belgium (Royal Decree 21/01/2020)	Bulgaria (Regulation No. 13)	Croatia (Official Gazette No. 91/2018)
Methane, dimethoxy- (109-87-5)	TWA-TMW: 1000 ppm; TWA-TMW: 3100 mg/m³;	TWA: 1000 ppm; TWA: 3155 mg/m³;	-	TWA-GVI: 1000 ppm; TWA-GVI: 3160 mg/m³; STEL-KGVI: 1250 ppm; STEL-KGVI: 3950 mg/m³;
Hexane (110-54-3)	TWA-TMW: 20 ppm; TWA-TMW: 72 mg/m³; STEL-KZGW: 80 ppm (4 X 15 min); STEL-KZGW: 288 mg/m³ (4 X 15 min);	TWA: 20 ppm; TWA: 72 mg/m³;	TWA: 20 ppm; TWA: 72.0 mg/m³;	TWA-GVI: 20 ppm; TWA-GVI: 72 mg/m³; Sk
Cyclohexane (110-82-7)	TWA-TMW: 200 ppm; TWA-TMW: 700 mg/m³; STEL-KZGW: 800 ppm (4 X 15 min); STEL-KZGW: 2800 mg/m³ (4 X 15 min);	TWA: 100 ppm; TWA: 350 mg/m³;	TWA: 200 ppm; TWA: 700.0 mg/m³;	TWA-GVI: 200 ppm; TWA-GVI: 700 mg/m³; Sk
Chemical name	Cyprus (Cabinet of Ministers Regulation 268/2001)	Czech Republic (Regulation 361/2007)	Denmark (BEK no. 1619 of 19/12/2024)	Estonia (Regulation No. 105)
Methane, dimethoxy- (109-87-5)	-	-	TWA: 1000 ppm; TWA: 3100 mg/m³; STEL: 2000 ppm; STEL: 6200 mg/m³;	TWA: 1000 ppm; TWA: 3100 mg/m³;
Hexane (110-54-3)	TWA: 20 ppm; TWA: 72 mg/m³;	TWA: 70 mg/m³; Ceiling: 200 mg/m³; pSk	TWA: 20 ppm; TWA: 72 mg/m³; STEL: 40 ppm; STEL: 144 mg/m³;	TWA: 20 ppm; TWA: 72 mg/m³;
Cyclohexane (110-82-7)	TWA: 200 ppm; TWA: 700 mg/m³;	TWA: 700 mg/m³; Ceiling: 2000 mg/m³;	TWA: 50 ppm; TWA: 172 mg/m³; STEL: 100 ppm; STEL: 344 mg/m³;	TWA: 200 ppm; TWA: 700 mg/m³;
Chemical name	Finland (HTP-ARVOT 2025)	France (INRS ED 6443)	Germany (TRGS 900)	Germany (DFG)
Methane, dimethoxy- (109-87-5)	TWA: 1000 ppm; TWA: 3200 mg/m³; STEL: 1300 ppm; STEL: 4100 mg/m³;	TWA-VME: 1000 ppm; TWA-VME: 3100 mg/m³;	TWA-AGW; 500 ppm (2(II)); TWA-AGW; 1600 mg/m³ (2(II));	TWA-MAK: 500 ppm; II(2); TWA-MAK: 1600 mg/m³; II(2);
Hexane (110-54-3)	TWA: 20 ppm; TWA: 72 mg/m³; STEL: 630 ppm; STEL: 2300 mg/m³; pSk	TWA-VME (restrictif): 20 ppm; TWA-VME (restrictif): 72 mg/m³; STEL-VLCT: 1500 mg/m³; vapor	TWA-AGW; 50 ppm (8(II)); TWA-AGW; 180 mg/m³ (8(II));	TWA-MAK: 50 ppm; II(8); TWA-MAK: 180 mg/m³; II(8);
Cyclohexane (110-82-7)	TWA: 100 ppm; TWA: 350 mg/m³; STEL: 250 ppm; STEL: 875 mg/m³;	TWA-VME (restrictif): 200 ppm; TWA-VME (restrictif): 700 mg/m³; STEL-VLCT (restrictif): 375 ppm; STEL-VLCT (restrictif): 1300 mg/m³;	TWA-AGW; 200 ppm (4(II)); TWA-AGW; 700 mg/m³ (4(II));	TWA-MAK: 200 ppm; II(4); TWA-MAK: 700 mg/m³; II(4);
Chemical name	Greece (Presidential Decrees 90/1999, 338/2001 and 212/2006)	Hungary (5/2020 ITM Decree)	Italy (Legislative Decree no. 81)	Italy (AIDII)

Methane, dimethoxy- (109-87-5)	TWA: 1000 ppm; TWA: 3100 mg/m³; STEL: 1250 ppm; STEL: 3880 mg/m³;	-	-	TWA: 1000 ppm; TWA: 3112 mg/m³;
Hexane (110-54-3)	TWA: 20 ppm; TWA: 72 mg/m³;	TWA-AK: 72 mg/m³; TWA-AK: 20 ppm; pSk	TWA: 20 ppm; TWA: 72 mg/m³;	TWA: 50 ppm; TWA: 176 mg/m³; pSk
Cyclohexane (110-82-7)	TWA: 200 ppm; TWA: 700 mg/m³;	TWA-AK: 200 ppm; TWA-AK: 700 mg/m³;	TWA: 100 ppm; TWA: 350 mg/m³;	TWA: 100 ppm; TWA: 344 mg/m³;
Chemical name	Ireland (CoP 2024)	Latvia (Cabinet of Ministers Regulation No. 325)	Lithuania (HN 23:2011)	Luxembourg (A-N°684)
Methane, dimethoxy- (109-87-5)	TWA: 1000 ppm; TWA: 3100 mg/m³; STEL: 3000 ppm (calculated); STEL: 9100 mg/m³ (calculated);	TWA: 10 mg/m³;	-	-
Hexane (110-54-3)	TWA: 20 ppm; TWA: 72 mg/m³; STEL: 60 ppm (calculated); STEL: 216 mg/m³ (calculated); pSk	TWA: 20 ppm; TWA: 72 mg/m³; STEL: 300 mg/m³;	TWA-IPRD: 20 ppm; TWA-IPRD: 72 mg/m³;	TWA: 20 ppm; TWA: 72 mg/m³;
Cyclohexane (110-82-7)	TWA: 200 ppm; TWA: 700 mg/m³; STEL: 600 ppm (calculated); STEL: 2100 mg/m³ (calculated);	TWA: 23 ppm; TWA: 80 mg/m³;	TWA-IPRD: 200 ppm; TWA-IPRD: 700 mg/m³;	TWA: 200 ppm; TWA: 700 mg/m³;
Chemical name	Malta (Subsidiary Legislation 424.24)	Netherlands (Working Conditions Regulations)	Norway (FOR-2011-12-06-1358)	Poland (Legislative Journal 2018 item 1286)
Methane, dimethoxy- (109-87-5)	-	-	TWA: 500 ppm; TWA: 1550 mg/m³; STEL: 625 ppm (value calculated); STEL: 1937.5 mg/m³ (value calculated);	TWA-NDS: 1000 mg/m³; STEL-NDSCh: 3500 mg/m³;
Hexane (110-54-3)	TWA: 20 ppm; TWA: 72 mg/m³;	TWA: 20 ppm; TWA: 72 mg/m³; STEL: 40 ppm; STEL: 144 mg/m³;	TWA: 20 ppm; TWA: 72 mg/m³; STEL: 30 ppm (value calculated); STEL: 108 mg/m³ (value calculated);	TWA-NDS: 72 mg/m³; Sk
Cyclohexane (110-82-7)	TWA: 200 ppm; TWA: 700 mg/m³;	TWA: 200 ppm; TWA: 700 mg/m³; STEL: 400 ppm; STEL: 1400 mg/m³;	TWA: 150 ppm; TWA: 525 mg/m³; STEL: 187.5 ppm (value calculated); STEL: 656.25 mg/m³ (value calculated);	TWA-NDS: 300 mg/m³; STEL-NDSCh: 1000 mg/m³; Sk
Chemical name	Portugal (NP 1796:2014)	Romania (Government Decision no. 1218/2006)	Slovakia (Gov. Decree 122/2024)	Slovenia (Regulation Nos. 100/2001 and 29/2024)
Methane, dimethoxy- (109-87-5)	TWA (VLE-MP): 1000 ppm;	TWA: 531 ppm; TWA: 1500 mg/m³; STEL: 885 ppm;	-	TWA: 960 mg/m³; TWA: 300 ppm; STEL: 600 ppm;

		STEL: 2500 mg/m³;		STEL: 1920 mg/m³;
Hexane (110-54-3)	TWA (VLE-MP): 20 ppm; TWA (VLE-MP): 72 mg/m³; pSk	TWA: 20 ppm; TWA: 72 mg/m³; STEL: 1000 mg/m³;	TWA: 20 mg/m³; TWA: 72 mg/m³; Ceiling: 140 mg/m³;	TWA: 20 ppm; TWA: 72 mg/m³; STEL: 576 mg/m³; STEL: 160 ppm;
Cyclohexane (110-82-7)	TWA (VLE-MP): 200 ppm; TWA (VLE-MP): 700 mg/m³;	TWA: 200 ppm; TWA: 700 mg/m³;	TWA: 200 ppm; TWA: 700 mg/m³;	TWA: 200 ppm; TWA: 700 mg/m³; STEL: 2800 mg/m³; STEL: 800 ppm;
Chemical name	Spain (Occupational exposure limits for chemical agents in Spain, 2025)	Sweden (AFS 2023:14)	Switzerland (MAK Values)	United Kingdom
Methane, dimethoxy- (109-87-5)	TWA-(VLA-ED): 1000 ppm; TWA-(VLA-ED): 3165 mg/m³;	-	TWA-MAK: 1000 ppm; TWA-MAK: 3100 mg/m³; STEL-KZGW: 2000 ppm; STEL-KZGW: 6200 mg/m³;	TWA: 1000 ppm; TWA: 3160 mg/m³; STEL: 1250 ppm; STEL: 3950 mg/m³;
Hexane (110-54-3)	TWA-(VLA-ED): 20 ppm; TWA-(VLA-ED): 72 mg/m³;	TLV-NGV: 20 ppm; TLV-NGV: 72 mg/m³; STEL (Bindande KGV): 50 ppm; STEL (Bindande KGV): 180 mg/m³;	TWA-MAK: 50 ppm; TWA-MAK: 180 mg/m³; STEL-KZGW: 400 ppm; STEL-KZGW: 1440 mg/m³; Sk	TWA: 20 ppm; TWA: 72 mg/m³; STEL: 60 ppm; STEL: 216 mg/m³;
Cyclohexane (110-82-7)	TWA-(VLA-ED): 200 ppm; TWA-(VLA-ED): 700 mg/m³;	TLV-NGV: 200 ppm; TLV-NGV: 700 mg/m³;	TWA-MAK: 200 ppm; TWA-MAK: 700 mg/m³; STEL-KZGW: 800 ppm; STEL-KZGW: 2800 mg/m³;	TWA: 100 ppm; TWA: 350 mg/m³; STEL: 300 ppm; STEL: 1050 mg/m³;

Note See section 16 for terms and abbreviations

Biological occupational exposure limits

Chemical name	European Union (Directive 98/24/EC)	Austria (VGÜ 2008)	Bulgaria (Regulation No. 13)	Croatia (Official Gazette No. 91/2018)	Czech Republic (Decree Nos. 181/2015 and 240/2015)
Hexane (110-54-3)	-	-	-	150 µg/L - blood (n-Hexane) - during exposure 40 ppm - final exhaled air (n-Hexane) - during exposure 0.20 mg/g Creatinine - urine (2-Hexanol) - at the end of the work shift 5.30 mg/g Creatinine - urine (2,5-Hexanedione) - at the end of the work shift	-
Cyclohexane (110-82-7)	-	-	-	150 mg/g Creatinine - urine (1,2-Cyclohexanedi	-

				ol) - at the end of the work shift; at chronic exposure after several successive shifts 450 µg/L - blood (Cyclohexanol) - during exposure 3.20 mg/g Creatinine - urine (Cyclohexanol) - during the second half of the work shift	
Chemical name	Denmark (BEK no. 1619 of 19/12/2024)	Finland (HTP-ARVOT 2025)	France (Decree 2009-157)	Germany (DFG)	Germany (TRGS 903)
Hexane (110-54-3)	-	-	- urine (2,5-Hexanedione) - end of shift	5 mg/L (urine - 2,5-Hexandione plus 4,5-Dihydroxy-2-hexanone (after hydrolysis) end of shift) 5 mg/L - BAT (end of exposure or end of shift) urine 5 mg/L - BAT (for long-term exposures: at the end of the shift after several shifts) urine	5 mg/L (urine - 2,5-Hexandione plus 4,5-Dihydroxy-2-hexanone (after hydrolysis) end of shift)
Cyclohexane (110-82-7)	-	-	-	150 mg/g Creatinine (urine - total 1,2-Cyclohexanediol (after hydrolysis) end of shift) 150 mg/g Creatinine (urine - total 1,2-Cyclohexanediol (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 150 mg/g Creatinine - BAT (for long-term exposures: at the end of the shift after several shifts) urine	150 mg/g Creatinine (urine - total 1,2-Cyclohexanediol (after hydrolysis) end of shift) 150 mg/g Creatinine (urine - total 1,2-Cyclohexanediol (after hydrolysis) for long-term exposures: at the end of the shift after several shifts)

Chemical name	Hungary (5/2020 ITM Decree)	Ireland (CoP 2024)	Italy (Legislative Decree no. 81)	Italy (AIDII)
Hexane (110-54-3)	2 mg/L (urine - 2,5-Hexanedione (after hydrolysis) end of shift) 18 µmol/L (urine - 2,5-Hexanedione (after hydrolysis) end of shift)	0.4 mg/L (urine - 2,5-Hexanedione end of shift at end of workweek)	-	0.5 mg/L - urine (2,5-Hexanedione (without hydrolysis)) - end of shift at end of workweek

Chemical name	Latvia (Cabinet of Ministers Regulation No. 325)	Luxembourg (A-N°684)	Romania (Government Decision no. 1218/2006)	Slovakia (Gov. Decree 122/2024)
Hexane (110-54-3)	-	-	5 mg/g Creatinine -	5 mg/L (urine -

			urine (2,5-Hexandion) - end of shift	2,5-Hexanedione end of exposure or work shift) 5 mg/L (urine - 4,5-Dihydroxy-2-hexanone end of exposure or work shift)
Chemical name	Slovenia (Regulation No. 100/2001)	Spain (Occupational exposure limits for chemical agents in Spain, 2025)	Switzerland (BAT Values)	United Kingdom
Hexane (110-54-3)	5 mg/L - urine (2,5-Hexandione and 4,5-Dihydroxy-2-hexanone (after hydrolysis)) - at the end of the work shift	0.2 mg/L (urine - 2,5-Hexanedione end of workweek)	5 mg/L (urine - 2,5-Hexanedione plus 4,5-Dihydroxy-2-hexanone end of shift)	-
Cyclohexane (110-82-7)	150 mg/g Creatinine - urine (1,2-Cyclohexanediol (after hydrolysis)) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays	-	150 mg/g creatinine (urine - total 1,2-Cyclohexanediol end of shift, and after several shifts (for long-term exposures)) 146 µmol/mmol creatinine (urine - total 1,2-Cyclohexanediol end of shift, and after several shifts (for long-term exposures))	-

Note: See section 16 for terms and abbreviations.

Information on monitoring procedures

Refer to European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) or equivalent national standard(s). Refer to European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) or equivalent national standard(s). Refer to European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) or equivalent national standard(s).

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Methane, dimethoxy- (109-87-5)	-	17.9 mg/kg bw/day [4] [6]	126.6 mg/m³ [4] [6]
Cyclohexane (110-82-7)	-	2016 mg/kg bw/day [4] [6]	700 mg/m³ [4] [6] 1400 mg/m³ [4] [7] 700 mg/m³ [5] [6] 1400 mg/m³ [5] [7]

Notes
[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Methane, dimethoxy- (109-87-5)	18.1 mg/kg bw/day [4] [6]	18.1 mg/kg bw/day [4] [6]	31.5 mg/m³ [4] [6]
Cyclohexane (110-82-7)	59.4 mg/kg bw/day [4] [6]	-	206 mg/m³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
			412 mg/m³ [4] [7] 206 mg/m³ [5] [6] 412 mg/m³ [5] [7]

Notes
[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Methane, dimethoxy- (109-87-5)	14.577 mg/L	-	1.477 mg/L	-	-
Cyclohexane (110-82-7)	44.7 µg/L	9 µg/L	4.47 µg/L	0.9 µg/L	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Methane, dimethoxy- (109-87-5)	13.135 mg/kg sediment dw	1.3135 mg/kg sediment dw	10 g/L	4.6538 mg/kg soil dw	-
Cyclohexane (110-82-7)	3.6 mg/kg sediment dw	0.36 mg/kg sediment dw	3.24 mg/L	0.694 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits.

Personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Antistatic boots. Chemical resistant apron. Wear fire resistant or flame retardant clothing.

Respiratory protection Use appropriate respiratory protection. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Aerosol

Physical state	Liquid
Color	No Pigment
Odor	Slight
Odor threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Boiling point or initial boiling point and boiling range	-41 - 156 °C	
Flammability	No data available	None known
Lower and upper explosion limit/flammability limit		None known
Lower explosion limit	19.9	
Upper explosion limit	1	
Flash point	No data available	None known
Autoignition temperature	246 °C	None known
Decomposition temperature	No data available	None known
SADT (°C)	No data available	None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Solubility	No data available	None known
Water solubility	No data available	None known
Partition coefficient n-octanol/water (log value)	No data available	None known
Vapor pressure	No data available	None known
Density and/or relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	No data available	None known
Particle characteristics		None known
Particle Size	No data available	
Particle Size Distribution	No data available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
No information available

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under recommended storage conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions.

SECTION 11: Toxicological information

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

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

Information on likely routes of exposure

Product Information

Inhalation Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

Eye contact Specific test data for the substance or mixture is not available. May cause irritation.

Skin contact Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause irritation to mucous membranes.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Erythema (skin redness). May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Acute toxicity Based on available data, the classification criteria are not met.

Numerical measures of toxicity

The following ATE values have been calculated for the mixture

ATEmix (dermal) 300,000.00 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methane, dimethoxy- (109-87-5)	5005 mg/kg (rat)	> 5000 mg/kg (Rabbit)	20001 ppm
Hexane (110-54-3)	-	3000 mg/kg (Rabbit)	-

Cyclohexane (110-82-7)	-	> 2000 mg/kg (Rabbit)	-

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

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitization Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.
The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Hexane (110-54-3)	Repr. 2

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Causes damage to the following organs through prolonged or repeated exposure: nervous system.

Aspiration hazard May be fatal if swallowed and enters airways.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disruption for human health Based on available data, the classification criteria are not met.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity Toxic to aquatic life with long lasting effects. Harmful to aquatic life.

12.2. Persistence and degradability No information available.

12.3. Bioaccumulative potential

Component Information

Chemical name	Partition coefficient	Bioconcentration factor (BCF)	Trophic magnification factor (TMF)
Methane, dimethoxy- (109-87-5)	-	-	-
Hexane (110-54-3)	4	-	-
Cyclohexane (110-82-7)	3.44	-	-

12.4. Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment This product does not contain any substances that are assessed to be a PBT or a vPvB.

Chemical name	PBT and vPvB assessment
Methane, dimethoxy- (109-87-5)	Not PBT/vPvB
Hexane (110-54-3)	Not PBT/vPvB
Cyclohexane (110-82-7)	Not PBT/vPvB

12.6. Endocrine disrupting properties Based on available data, the classification criteria are not met.

12.7. Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number UN1950
14.2 UN proper shipping name Aerosols, flammable
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not regulated
14.5 Environmental hazards Yes
14.6 Special precautions for user
Special Provisions A145, A167, A802
ERG Code 10L
Description UN1950, Aerosols, flammable, 2.1

IMDG

14.1 UN number or ID number UN1950
14.2 UN proper shipping name Aerosols
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not regulated
14.5 Environmental hazards Yes
Marine pollutant indicator P

Marine pollutant name	NOTE_P_Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics, Cyclohexane
14.6 Special precautions for user	
Special Provisions	63,190, 277, 327, 344, 381, 959
EmS-No.	F-D, S-U
Description	UN1950, Aerosols, 2.1, Marine pollutant
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN1950
14.2 UN proper shipping name	Aerosols
14.3 Transport hazard class(es)	2.2
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, 2.2, Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	190, 327, 344, 625
Classification code	5A

ADR

14.1 UN number or ID number	UN1950
14.2 UN proper shipping name	Aerosols
14.3 Transport hazard class(es)	2.2
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, 2.2, (E), Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	190, 327, 344, 625
Classification code	5A
Tunnel restriction code	(E)

ADN

14.1 UN number or ID number	UN1950
14.2 UN proper shipping name	Aerosols
14.3 Transport hazard class(es)	2.2
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, 2.2, Environmentally Hazardous
14.5 Environmental hazard	Yes
14.6 Special precautions for user	
Special Provisions	190, 327, 344, 625
Classification code	5A
Ventilation	VE04
Equipment Requirements	PP

SECTION 15: Regulatory information

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

National regulations

Germany

Water hazard class (WGK) obviously hazardous to water (WGK 2)

European Union

Authorizations and/or restrictions on use:

Use restricted. See item: 3.

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV

Hexane 110-54-3	Use restricted. See entry 75.	-
Cyclohexane 110-82-7	Use restricted. See entry 57. Use restricted. See entry 75.	-

International Inventories

TSCA	Not determined
DSL/NDSL	Not determined
ENCS	Not determined
IECSC	Not determined
KECL	Not determined
PICCS	Not determined
AIIC	Not determined
NZIoC	Not determined
TCSI	Not determined

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Full text of any hazard and/or precautionary statements referred to under Sections 2-15

H220 - Extremely flammable gas
H225 - Highly flammable liquid and vapor
H280 - Contains gas under pressure; may explode if heated
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H336 - May cause drowsiness or dizziness
H361f - Suspected of damaging fertility
H372 - Causes damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P321 - Specific treatment (see supplemental first aid instructions on this label)
P332 + P313 - If skin irritation occurs: Get medical advice and attention
P362 + P364 - Take off contaminated clothing and wash it before reuse
P261 - Avoid breathing dust, fume, gas, mist, vapors and spray
P271 - Use only outdoors or in a well-ventilated area
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable
P260 - Do not breathe dust, fume, gas, mist, vapors and spray
P270 - Do not eat, drink or smoke when using this product
P314 - Get medical advice and attention if you feel unwell
P273 - Avoid release to the environment
P391 - Collect spillage
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
P331 - Do NOT induce vomiting
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

Key or legend to abbreviations and acronyms used in the safety data sheet
List may include phrases which are not applicable to this product

ACGIH	American Conference of Governmental Industrial Hygienists
AIDII	Italian Association of Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DFG	German Research Foundation
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
ECHA	European Chemicals Agency
EC Number	European Community number
EINECS	European Inventory of Existing Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	U.S. Environmental Protection Agency
EWC	European Waste Codes
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organization
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organization for Standardization
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MAK	Maximum Concentration at the Workplace
MAL	Measuring Technical Hygienic Air Needs
MARPOL	International Convention for the Prevention of Pollution from Ships
MDLPS	Ministry of Labor and Social Policy
NDSL	Non-Domestic Substances List (Canada)
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits

PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
REACH	Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
SVHC	Substance of very high concern
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TRGS	Technical Rule for Hazardous Substances
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
As	Allergenic substance
C	Carcinogen
DS	Dermal Sensitizer
Ot	Ototoxicant
pOt	Ototoxicant - potential to cause hearing disorders
PS	Photosensitizer
RS	Respiratory Sensitizer
S	Sensitizer
poS	Sensitizer - capable of causing occupational asthma
Sa	Simple asphyxiant
Sd	Skin designation
pSd	Skin designation - potential for cutaneous absorption
Sdv	Skin designation - vacated
Sk	Skin notation
dSk	Skin notation - danger of cutaneous absorption
pSk	Skin notation - potential for cutaneous absorption

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method

STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method
Flammable aerosol	On basis of test data

Key literature references and sources for data used to compile the SDS
U.S. Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
U.S. Environmental Protection Agency
U.S. EPA Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
U.S. Hazardous Substance Data Bank (HSDB)
International Uniform Chemical Information Database (IUCLID)
Japan National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
U.S. National Institute for Occupational Safety and Health (NIOSH)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
United Nations World Health Organization (WHO)

Limit Value Legal Basis

European Union (Directive 98/24/EC)	Council Directive 98/24/EC of April 7, 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended
European Union (Directive 2004/37/EC)	Directive 2004/37/EC of April 29, 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work, as amended
Austria (GKV BGBl. II Nr. 330/2024)	Ordinance on Limit Values for Workplace Substances and on Carcinogens, as amended by BGBl. II Nr. 330/2024, from the Federal Ministry of Economics and Labor
Austria (VGÜ 2008)	Ordinance on health monitoring at the workplace 2008, published through BGBl. II Nr. 224/2007 by Austria Minister for Labor and Social Affairs, as amended
Belgium (Royal Decree 21/01/2020)	Royal Decree of March 11, 2002 on the protection of workers' health against risks from chemical agents at work, as amended
Bulgaria (Regulation No. 13)	Regulation No. 13 of December 30, 2003 on the Protection of Workers from Hazards Related to Exposure to Chemical Agents at Work, as amended
Bulgaria (Regulation No. 10)	Regulation No. 10 of September 26, 2003 on the Protection of Workers from the Risks Associated with Exposure to Carcinogens, Mutagens or Substances Toxic to Reproduction at Work, as amended
Croatia (Official Gazette No. 91/2018)	Official Gazette No. 91/2018 on the Protection of Workers from Exposure to Hazardous Chemicals at Work, the Limit Values of Exposure and the Biological Limit Values, as amended
Cyprus (Cabinet of Ministers Regulation 268/2001)	Cabinet of Ministers Regulation 268/2001 - Safety and Health in the Working Environment (Chemical Substances), as amended
Cyprus (Cabinet of Ministers Regulation 153/2001)	Cabinet of Ministers Regulation 153/2001 - Safety and Health in the Working Environment (Chemical Substances-Carcinogens), as amended
Czech Republic (Regulation 361/2007)	Conditions for the Protection of the Health of Employees at Work, Government Regulation 361/2007, as amended
Czech Republic (Decree Nos.	Decree 181/2015 and Decree 240/2015, amending Decree No. 432/2003 Coll., laying down

181/2015 and 240/2015)	the conditions for the application of the work into categories, limit values for the parameters of biological exposure tests and requirements for reporting work with asbestos and biological agents
Denmark (BEK no. 1619 of 19/12/2024)	Statutory Order No. 507, Order on Limit Values for Substances and Materials, as amended by BEK no. 1619 of 19/12/2024
Estonia (Regulation No. 105)	Health and Safety Requirements for the Use of Dangerous Chemicals and Materials Containing Them and Occupational Exposure Limits to Chemical Agents, Regulation No. 105 of March 20, 2001, as amended
Finland (HTP-ARVOT 2025)	Regulation on Concentrations Known to be Hazardous, 55/2025, Publications of Ministry of Social Affairs and Health
France (INRS ED 6443)	Occupational Exposure Limit Values, ED 6443, Published 2021 by the INRS (the National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases), as amended
France (Decree 2009-157)	Decree 2009-1570 of December 15, 2009, relative to the control of chemical risk on workplaces
Germany TRGS	TRGS 900 - Occupational Exposure Limits, Technical Rules for Dangerous Substances, 2025
Germany (TRGS 903)	Biological Threshold Limits (BGW-Values), Technical Rules for Dangerous Substances, 2025
Germany (DFG)	MAK and BAT values of Hazardous Chemical Compounds in the Work Area, published by the German Research Foundation on July 1, 2025
Greece (Presidential Decree 90/1999)	Presidential Decree 90/1999, Occupational Exposure Limits - Protection of workers' health and safety from exposure to certain chemical substances during the workday, as amended
Greece (Presidential Decree 212/2006)	Presidential Decree 212/2006, Protection of workers that are exposed to asbestos
Greece (Presidential Decree 338/2001)	Presidential Decree 338/2001, Protection of workers' health and safety from exposure to certain chemical substances during the workday
Hungary (5/2020 ITM Decree)	5/2020. (II. 6.) Ministry of Innovation and Technology decree on the protection of the health and safety of workers from the risks related to chemical agents, as amended
Ireland (CoP 2024)	2024 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2021) & the Safety, Health and Welfare at Work (Carcinogens, Mutagens and Reprotoxic Substances) Regulations (2024)
Italy (Legislative Decree no. 81)	Title IX, Annex XLIII and XXXVIII, Professional Exposure Limits and Annex XXXIX Mandatory Biological Limit Values and Health Monitoring, Legislative Decree no. 81 of April 9, 2008, as amended
Italy (AIDII)	Final Note (1), Ministerial Decree of August 20, 1999 by the Ministry of Health along with the Ministry of Industry, Trade, and Arts
Latvia (Cabinet of Ministers Regulation No. 325)	Cabinet of Ministers Regulation No. 325 of 2007 - Labor Protection Requirements when Coming in Contact with Chemical Substances at Workplaces, as amended
Lithuania (HN 23:2011)	Lithuanian Hygiene Standard HN 23:2011 Occupational Exposure limit values for chemical substances - General requirements of measurement and impact assessment, as amended
Luxembourg (A-N°684)	Grand-Ducal Regulation of 20 July 2018 amending the Grand-Ducal Regulation of 14 November 2016 concerning the protection of the safety and health of employees against the risks associated with chemical agents in the workplace, A-N°684 of 2018
Malta (Subsidiary Legislation 424.24)	Malta Occupational Health and Safety Authority Act: Chapter 424 - Protection of the health and safety of workers from the risks related to chemical agents at work, as amended
Netherlands (Working Conditions Regulations)	Occupational Working Conditions Regulation, Limit Values for substances harmful to health, Annex XIII, as amended
Norway (FOR-2011-12-06-1358)	Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents, as amended
Poland (Legislative Journal 2018 item 1286)	Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the Highest Allowable Concentrations and Intensities of Factors Harmful to Health in the Work Environment, as amended
Portugal (NP 1796:2014)	Portuguese Norm NP 1796:2014, Occupational exposure limits and biological exposure indices to chemical agents, Table 1 - Occupational exposure limits and biological exposure indices to chemical agents (OELs)
Romania (Government Decision no. 1218/2006)	Governmental Decision No. 1218 from September 6, 2006 on the minimum health and safety requirements for protection of workers from the risks related to exposure to chemical agents, Annex No. 1 Mandatory National Occupational Exposure Limit Values for Chemical

	Agents
Slovakia (Gov. Decree 122/2024)	Government Decree of Slovak Republic 122/2024 of May 22, 2024 amending Government Decree of Slovak Republic 355/2006 about protection of health of employees when working with chemical agents
Slovenia (Regulation No. 100/2001)	Regulation for protection of workers against risks related to exposure to chemical substances at the workplace, Annexes I and II, the Official Gazette of the Republic of Slovenia, No. 100/2001, as amended
Slovenia (Regulation No. 29/2024)	Regulation for protection of workers against risks related to carcinogenic, mutagenic or reprotoxic substances exposure at work, Annex III, The Official Journal of the Republic of Slovenia, No. 29/2024, as amended
Spain (Occupational exposure limits for chemical agents in Spain, 2025)	National Institute for Safety and Health at Work (INSST) - Occupational exposure limits for chemical agents in Spain, 2025, Tables 1 and 3
Sweden (AFS 2023:14)	The Swedish Work Environment Authority's Regulations and General Advice on Respiratory limit values in the work Environment
Switzerland (MAK Values)	Occupational Limit Values 2025, Swiss National Accident Insurance Fund, List of MAK Values
Switzerland (BAT Values)	Occupational Limit Values 2025, Swiss National Accident Insurance Fund, List of Biological Limit Values

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End of Safety Data Sheet