

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product Identifier**

Product Form : Mixture
Product Name : TOMM40 2X Reaction Buffer
Product Reference #: 145472

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against**1.2.1. Relevant Identified Uses**

Use of the Substance/Mixture : For Research Use Only.

1.2.2. Uses Advised Against

Uses Advised Against : Not for Use in Diagnostic Procedures.

1.3. Details of the Supplier of the Safety Data Sheet**Company**

Asuragen, Inc.
2150 Woodward St. Suite 100
Austin, TX 78744 USA
T: +1 512-681-5200
USA, Toll-free T: +1 877-777-1874
E-mail: support@asuragen.com
Web address: www.asuragen.com

1.4. Emergency Telephone Number

Emergency Number : Tel: +1 -512-681-5200 US, Toll-free Tel: 1-877-777-1874

SECTION 2: HAZARDS IDENTIFICATION**2.1. Classification of the Substance or Mixture**

Classification According to Regulation (EC) No. 1272/2008

Not classified

2.2. Label Elements

Labelling According to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other Hazards

Other Hazards Not Contributing to the Classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII

The substance/mixture does not contain substance(s) equal to or greater than 0.1% by weight that are present in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substances**

Not applicable

3.2. Mixtures

Name	Product Identifier	%	Classification According to Regulation (EC) No. 1272/2008
Diammonium sulfate substance with national workplace exposure limit(s) (BG, LV)	(CAS-No.) 7783-20-2 (EC-No.) 231-984-1	0,53	Not classified

SECTION 4: FIRST AID MEASURES**4.1. Description of First-aid Measures**

First-Aid Measures General : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-Aid Measures After Inhalation : When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.
First-Aid Measures After Skin Contact : Remove contaminated clothing. Drench affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.

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First-Aid Measures After Eye Contact : Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

First-Aid Measures After Ingestion : Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/Effects After Inhalation : Prolonged exposure may cause irritation.

Symptoms/Effects After Skin Contact : Prolonged exposure may cause skin irritation.

Symptoms/Effects After Eye Contact : May cause slight irritation to eyes.

Symptoms/Effects After Ingestion : Ingestion may cause adverse effects.

Chronic Symptoms : None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media : Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard : Not considered flammable but may burn at high temperatures.

Explosion Hazard : Product is not explosive.

Reactivity : Hazardous reactions will not occur under normal conditions.

Hazardous Combustion Products : Nitrogen oxides. Carbon oxides (CO, CO₂). Sulfur oxides. Ammonia.

5.3. Advice for Firefighters

Precautionary Measures Fire : Exercise caution when fighting any chemical fire.

Firefighting Instructions : Use water spray or fog for cooling exposed containers.

Protection During Firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures : Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapour, mist, spray).

6.1.1. For Non-Emergency Personnel

Protective Equipment : Use appropriate personal protective equipment (PPE).

Emergency Procedures : Evacuate unnecessary personnel.

Measures In Case Of Dust Release : Not applicable.

6.1.2. For Emergency Responders

Protective Equipment : Equip cleanup crew with proper protection.

Emergency Procedures : Upon arrival at the scene, a first responder is expected to recognise the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up : Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Precautions for Safe Handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.

Hygiene Measures : Handle in accordance with good industrial hygiene and safety procedures.

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7.2. Conditions for Safe Storage, Including Any Incompatibilities

- Technical Measures** : Comply with applicable regulations.
- Storage Conditions** : Store in accordance with applicable national storage class systems. Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.
- Incompatible Materials** : Water reactive materials. Strong acids, strong bases, strong oxidisers.

7.3. Specific End Use(s)

For Research Use Only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Please see section 16 for the legal basis of limit value information in section 8.1, including the national legislation or provision which gives rise to a given limit.

Diammonium sulfate (7783-20-2)		
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	10 mg/m ³
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	0,02 mg/m ³ (hydrate (Ammonium chromum sulfate))

8.2. Exposure Controls

- Appropriate Engineering Controls** : Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.
- Personal Protective Equipment** : Gloves. Protective clothing. Protective goggles. Personal protective equipment should be chosen in accordance with Regulation (EU) 2016/425, CEN standards, and in discussion with the supplier of the protective equipment.



- Materials for Protective Clothing** : Chemically resistant materials and fabrics.
- Hand Protection** : Wear protective gloves.
- Eye Protection** : Chemical safety goggles.
- Skin and Body Protection** : Wear suitable protective clothing.
- Respiratory Protection** : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
- Other Information** : When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

- Physical State** : Liquid
- Colour, Appearance** : No data available
- Odour** : No data available
- Odour Threshold** : No data available
- pH** : No data available
- Evaporation Rate** : No data available
- Melting Point** : No data available
- Freezing Point** : No data available
- Boiling Point** : 100 °C (Water)
- Flash Point** : Not applicable
- Auto-Ignition Temperature** : Not applicable
- Decomposition Temperature** : No data available
- Flammability** : Not applicable
- Vapour Pressure** : No data available
- Relative Vapour Density At 20°C** : No data available
- Relative Density** : No data available
- Solubility** : No data available
- Partition Coefficient n-Octanol/Water** : No data available
- Viscosity** : No data available

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Explosive Properties	: No data available
Oxidising Properties	: No data available
Explosive Limits	: No data available
Particle Aspect Ratio	: Not applicable
Particle Aggregation State	: Not applicable
Particle Agglomeration State	: Not applicable
Particle Specific Surface Area	: Not applicable
Particle Dustiness	: Not applicable

9.2. Other Information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions

Hazardous polymerisation will not occur.

10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. Incompatible Materials

Water reactive materials. Strong acids, strong bases, strong oxidisers.

10.6. Hazardous Decomposition Products

Nitrogen oxides. Carbon oxides (CO, CO₂). Sulfur oxides. Ammonia.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Hazard Classes As Defined In Regulation (EC) No 1272/2008

Likely Routes of Exposure	: Dermal, Eye Contact, Inhalation, Oral
Acute Toxicity (Oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute Toxicity (Dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute Toxicity (Inhalation)	: Not classified (Based on available data, the classification criteria are not met)

Diammonium sulfate (7783-20-2)	
LD50 Oral Rat	2840 mg/kg (Source: NLM_CIP)
LD50 Dermal Rat	> 2000 mg/kg (Source: NLM_HSDB)

Skin Corrosion/Irritation	: Not classified (Based on available data, the classification criteria are not met)
Eye Damage/Irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or Skin Sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ Cell Mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive Toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific Target Organ Toxicity (Single Exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific Target Organ Toxicity (Repeated Exposure)	: Not classified (Based on available data, the classification criteria are not met)
Aspiration Hazard	: Not classified (Based on available data, the classification criteria are not met)
Symptoms/Injuries After Inhalation	: Prolonged exposure may cause irritation.
Symptoms/Injuries After Skin Contact	: Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact	: May cause slight irritation to eyes.
Symptoms/Injuries After Ingestion	: Ingestion may cause adverse effects.
Chronic Symptoms	: None expected under normal conditions of use.

11.2. Information On Other Hazards

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to humans as it does not meet the criteria set out in section A of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General	: Not classified.
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Hazardous To The Aquatic Environment, Short-Term (Acute) : Not classified (Based on available data, the classification criteria are not met)
Hazardous To The Aquatic Environment, Long-Term (Chronic) : Not classified (Based on available data, the classification criteria are not met)

Diammonium sulfate (7783-20-2)	
LC50 - Fish [1]	53 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 - Crustacea [1]	121,7 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 - Fish [2]	480 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [flow-through] Source: IUCLID)
NOEC chronic fish	5,29 mg/l

12.2. Persistence and Degradability

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Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

TOMM40 2X Reaction Buffer	
Bioaccumulative Potential	Not established.
Diammonium sulfate (7783-20-2)	
Partition coefficient n-octanol/water (Log Pow)	-5,1 (at 25 °C)

12.4. Mobility in Soil

No additional information available

12.5. Results of PBT and vPvB Assessment

Does not contain any PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XVIII

12.6. Endocrine Disrupting Properties

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

12.7. Other Adverse Effects

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Product/Packaging Disposal Recommendations : Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.
Ecology - Waste Materials : Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN Number or ID Number
Not regulated for transport
14.2. UN Proper Shipping Name
Not regulated for transport
14.3. Transport Hazard Class(es)
Not regulated for transport
14.4. Packing Group
Not regulated for transport
14.5. Environmental Hazards
Not regulated for transport

14.6. Special Precautions For User

No additional information available

14.7. Maritime Transport in Bulk According to IMO instruments

Not applicable

SECTION 15: REGULATORY INFORMATION

15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

15.1.1. EU-Regulations

15.1.1.1. REACH Annex XVII Information

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Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

15.1.1.2. REACH Candidate List Information

Contains no substance(s) listed on the REACH Candidate List

15.1.1.3. POP (2019/1021) - Persistent Organic Pollutants Information

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

15.1.1.4. PIC Regulation EU (649/2012) - Export and Import of Hazardous Chemicals Information

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

15.1.1.5. REACH Annex XIV Information

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

15.1.1.6. Substances Depleting the Ozone layer (1005/2009) Information

No additional information available

15.1.1.7. EC Inventory Information

Diammonium sulfate (7783-20-2)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.1.1.8. Other Information

No additional information available

15.1.2. National Regulations

No additional information available

15.1.3. International Inventory Lists

Diammonium sulfate (7783-20-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)
Listed on Thailand Existing Chemicals Inventory (DIW)

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

SECTION 16: OTHER INFORMATION

Date of Preparation or Latest Revision	: 05/01/2024
Data Sources	: Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.
Other Information	: According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Indication of Changes

Section	Change	Date Changed	Version
1,2,3,11,15	Data modified	05/01/2024	2.0

Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists	NDS - Najwyższe Dopuszczalne Steżenie
ADN – European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways	NDSch - Najwyższe Dopuszczalne Steżenie Chwilowe
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road	NDSP - Najwyższe Dopuszczalne Steżenie Pulapowe
ATE - Acute Toxicity Estimate	NOAEL - No-Observed Adverse Effect Level
BCF - Bioconcentration Factor	NOEC - No-Observed Effect Concentration
BEI - Biological Exposure Indices (BEI)	NRD - Nevirsytinas Ribinis Dydis
BOD – Biochemical Oxygen Demand	NTP – National Toxicology Program
CAS No. - Chemical Abstracts Service Number	OEL - Occupational Exposure Limits
CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008	PBT - Persistent, Bioaccumulative and Toxic
COD – Chemical Oxygen Demand	PEL - Permissible Exposure Limit
EC – European Community	pH – Potential Hydrogen
	REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals
	RID – Regulations Concerning the International Carriage of Dangerous Goods

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EC50 - Median Effective Concentration	by Rail
EEC – European Economic Community	SADT - Self Accelerating Decomposition Temperature
EINECS – European Inventory of Existing Commercial Chemical Substances	SDS - Safety Data Sheet
EmS-No. (Fire) - IMDG Emergency Schedule Fire	STEL - Short Term Exposure Limit
EmS-No. (Spillage) - IMDG Emergency Schedule Spillage	STOT - Specific Target Organ Toxicity
EU – European Union	TA-Luft - Technische Anleitung zur Reinhaltung der Luft
ErC50 - EC50 in Terms of Reduction Growth Rate	TEL TRK – Technical Guidance Concentrations
GHS – Globally Harmonized System of Classification and Labeling of Chemicals	ThOD – Theoretical Oxygen Demand
IARC - International Agency for Research on Cancer	TLM - Median Tolerance Limit
IATA - International Air Transport Association	TLV - Threshold Limit Value
IBC Code - International Bulk Chemical Code	TPRD - Trumpalaikio Poveikio Ribinis Dydis
IMDG - International Maritime Dangerous Goods	TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern
IPRV - Ilgalaikio Poveikio Ribinis Dydis	TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine
IOELV – Indicative Occupational Exposure Limit Value	TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte
LC50 - Median Lethal Concentration	TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte
LD50 - Median Lethal Dose	TSCA - Toxic Substances Control Act
LOAEL - Lowest Observed Adverse Effect Level	TWA - Time Weighted Average
LOEC - Lowest-Observed-Effect Concentration	VOC – Volatile Organic Compounds
Log Koc - Soil Organic Carbon-water Partitioning Coefficient	VLA-EC - Valor Límite Ambiental Exposición de Corta Duración
Log Kow - Octanol/water Partition Coefficient	VLA-ED - Valor Límite Ambiental Exposición Diaria
Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water	VLE – Valeur Limite D'exposition
MAK – Maximum Workplace Concentration/Maximum Permissible Concentration	VME – Valeur Limite De Moyenne Exposition
MARPOL - International Convention for the Prevention of Pollution	vPvB - Very Persistent and Very Bioaccumulative
	WEL – Workplace Exposure Limit
	WGK - Wassergefährdungsklasse

Glossary of Data Source Abbreviations

ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)	FOOD_JOURN: Food Research Journal (1956)
AU_WES: Australia WES	IARC: The International Agency for Research on Cancer
CHEMVIEW: ChemView (U.S. Environmental Protection Agency)	IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles
EC_RAR: European Commission Renewal Assessment Report	IUCLID: International Uniform Chemical Information Database
EC_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits	JAPAN_GHS: Japan GHS Basis for Classification Data
ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports	JP_J-CHECK: Japan J-Check
ECHA_API: European Chemicals Agency API	KR_NIER: South Korea National Institute of Environmental Research Evaluations
ECHA_RAC: ECHA Committee for Risk Assessment	NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme
EFSA: European Food Safety Authority	NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)
EPA: U.S. Environmental Protection Agency	NLM_CIP: National Library of Medicine ChemID plus database
EPA_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)	NLM_HSDB: National Library of Medicine Hazardous Substance Data Bank
EPA_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)	NLM_PUBMED: National Library of Medicine PubMed database
EPA_HPVC: High Production Volume Chemicals (U.S. Environmental Protection Agency)	NTP: National Toxicology Program
EPA_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)	NZ_CCID: New Zealand Chemical Classification and Information Database
EU_CLH: European Union Harmonised Classification and Labelling Proposal	OECD_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)
EU_RAR: European Union Risk Assessment Report	OECD_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)
	WHO: World Health Organization

Limit Value Legal Basis*

*Includes the below and any related regulations/provisions, and subsequent amendments

EU - 2019/1831 EU in accor. with 98/24/EC - Directive 2019/1831/EU of October 24, 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 2000/39/EC.	Greece - PWHSE - Occupational Exposure Limits - Protection of workers' health and safety from exposure to certain chemical substances during the workday, (latest amendment 82/2018) and Occupation Exposure Limits - Protection of workers' health and safety from exposure to certain carcinogenic and mutagenic chemical substances (latest amendment 26/2020), and Presidential Decree 212/2006 - Protection of workers that are exposed to asbestos.
EU - 2019/1243/EU, and 98/24/EC - Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work and amendment Regulation (EU) 2019/1243.	Hungary - Decree 05/2020 - 5/2020. (II. 6.) ITM decree on the protection of the health and safety of workers from the risks related to chemical agents
Austria - BGBl. II Nr. 254/2018 - Ordinance on Limit Values for Workplace Substances and on Carcinogens from the Federal Ministry of Economics and Labour, Published in 2003, Appendix 1: Substance List, Published through: Ministry of Economics and Labour of the Republic of Austria amended through the Government Gazette II (BGBl. II) No 119/2004) & BGBl. II No. 242/2006, BGBl. II No. 243/2007, lastly changed through BGBl. I Nr. 51/2011), BGBl. II Nr. 186/2015, BGBl. II Nr. 288/2017 amended by BGBl. II Nr. 254/2018.	Ireland - 2020 COP - 2020 Code of Practice for the Chemical Agents Regulations, Schedule 1
Austria - BLV BGBl. II Nr. 254/2018 - Ordinance on health monitoring at the workplace 2008, published through BGBl. II Nr. 224/2007 by Austria Minister	Italy - Decree 81 - Title IX, Annex XLIII and XXXVIII, Professional Exposure Limits and Annex XXXIX Mandatory Biological Limit Values and Health Monitoring, Article 1, Law 123 of August 3, 2007, Legislative Decree 81 of April 9, 2008, Last amended: January 2020
	Italy - IMDFN1 - Ministerial Decree of August 20, 1999 Final Note (1)
	Latvia - Reg. No. 325 - Cabinet of Ministers Regulation No. 325 - Labour

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for Labor and Social Affairs, Lastly changed through BGBl. II Nr. 254/2018
Belgium - Royal Decree 21/01/2020 - Royal decree amending title 1 relating to chemical agents in Book VI of the code of well-being at work, with regard to the list of limit values of exposure to chemical agents and title 2 relating to carcinogens, mutagens and reprotoxics of Book VI of the code of well-being at work (1)

Bulgaria - Reg. No. 13/10 -

Regulation No. 13 of December 30, 2003 on the Protection of Workers from Hazards Related to Exposure to Chemical Agents at Work Labor Code, Annex No.1 Limit values of chemical agents in the air of the working environment, and Annex № 2 Biological limit values of chemical agents and their metabolites (bio markers of exposure) or bio markers of effect Amended by: 71/2006, 67/2007, 2/2012, 46/2015, 73/2018, 5/2020), and Regulation No.10 of September 26, 2003 on the Protection of Workers from the Risks Associated with Exposure to Carcinogens and Mutagens at Work Annex No.1 Occupational Exposure Limits, Amended by: 8/2004, 46/2015, 5/2020

Croatia - OG No. 91/2018 - Regulation on the Protection of Workers from Exposure to Hazardous Chemicals at Work, the Limit Values of Exposure and the Biological Limit Values. Official Gazette No. 91 of October 12, 2018

Cyprus - KDP 16/2019 - Government of Cyprus Cabinet of Ministers Regulation 268/2001 - Safety and Health in the Working Environment (Chemical Substances) Article 38, As amended by Regulation 16/2019 and Cabinet of Ministers Regulation 153/2001 - Safety and Health in the Working Environment (Chemical Substances-Carcinogens), as amended by Regulation 493/2004 - Safety and Health in the Working Environment (Chemical Substances - Carcinogens) AND Law 47(I) 2000 - Occupational Health and Safety (Asbestos), as amended by Decree 316/2006.

Czech Republic - Reg. 41/2020 - Regulation 41/2020 amending Regulation 361/2007 of Coll. establishing Occupation Exposure Limits as amended
Czech Republic - Decree No. 107/2013 - Decree No. 107/2013 Coll., amending Decree No. 432/2003 Coll., laying down the conditions for the application of the work into categories, limit values for the parameters of biological exposure tests, collection of biological material conditions for the implementation of biological exposure tests and requirements for reporting work with asbestos and biological agents

Denmark - BEK No. 698 of 28/05/2020 - Order on Limit Values for Substances and Materials, The Statutory Order No. 507 of May 17, 2011, Appendix 1 - Limits for air pollution, etc. and Appendix 3 - Biological Exposure Values, Amended by: No. 986 of October 11, 2012, No. 655 of May 31, 2018, No. 1458 December 13, 2019, No. 698 of May 28, 2020

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