Safety Data Sheet

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LimaxBlue Crystal Preventer Additive

Revision: Revision 2.3 / R06

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/SUPPLIER

1.1. Substance/mixture identification: LimaxBlue Crystal Preventer Additive (SCR & AdBlue/AUS 32 System Protector)

Product form / code: Aqueous mixture | LMX-BLU-1000 / based on R02 recipe

1.2. Use: Additive for preventing cyanuric acid and urea crystallisation and cleaning injectors and dosing lines in diesel engine SCR systems.

Added to the AdBlue tank at 0,25%-0,50% v/v.

Uses advised against: Do not use directly in drinking-water systems, food manufacture or outside the specified SCR system.

1.3. Supplier details: LİMA DIŞ TİCARET VE TEKNOLOJİ ANONİM ŞİRKETİ

Head office address: Mecidiyeköy Yolu Cd. Karsuyu Sokak No:2, Trump Towers Kule 1 Kat:4 D:401, Şişli / İstanbul Factory / contact: Atatürk Mah., Adnan Menderes Cd. No:15/54, Esenyurt/İstanbul | Tel: +90 212 706 05 62 E-mail / web: info@limagroup.com.tr | www.limagroup.com.tr

1.4. Emergency telephone: 114 UZEM (National Poison Information Centre) | Company emergency line: +90 212 706 05 62

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the mixture (TR 28848 SEA / EU CLP EC 1272/2008):

Flammable liquids, Category 3 (H226: Flammable liquid and vapour) Serious eye damage/eye irritation, Category 2 (H319: Causes serious eye irritation) Specific target organ toxicity - single exposure, Category 3 (H336: May cause drowsiness or dizziness) Specific target organ toxicity - repeated exposure, Category 2 (H373: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral))

2.2. Label elements:

WARNING Hazard statements (H codes): H226: Flammable liquid and vapour. | H319: Causes serious eye irritation. | H336: May cause drowsiness or dizziness. | H373: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral). Precautionary statements (P codes): P210: Keep away from heat, hot surfaces, sparks, open flames. - No smoking. P260: Do not breathe vapour/mist. | P280: Wear protective gloves/eye protection. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present. Continue rinsing. P314: Get medical advice/attention if you feel unwell. P501: Dispose of contents/container at a licensed waste disposal facility.

2.3. Other hazards: The mixture does not meet PBT or vPvB criteria. Contains no endocrine-disrupting components.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixtures: Complete component table based on R02 recipe

Component identity	CAS / EC No	% by mass	Classification (CLP / SEA)
Deionised water	7732-18-5 / 231-791- 2	%68,00	Not classified.
Monoethylene glycol (MEG)	107-21-1 / 203-473-3	%15,00	Acute Tox. 4 H302; STOT RE 2 H373 (Kidneys; oral)
Isopropyl alcohol (IPA)	67-63-0 / 200-661-7	%10,00	Flam. Liq. 2 H225; Eye Irrit. 2 H319; STOT SE 3 H336
TH-1100 Commercial polymer solution (48,4% active acrylic homopolymer)	9003-01-4 / Polymer (exempt)	4,00% (1,94% active)	Not classified (aqueous polymer solution).
Low-foaming nonionic wetting agent (C9-11 alcohol ethoxylate)	68439-46-3 / 614-482-0	%1,50	Acute Tox. 4 H302; Eye Irrit. 2 H319 (included in the summation calculation)
Sodium benzoate	532-32-1 / 208-534-8	%1,00	Eye Irrit. 2 H319
Disodium EDTA dihydrate	6381-92-6 / 205-358- 3	%0,50	Acute Tox. 4 H332; STOT RE 2 H373 (inhalation)

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures: Inhalation: Immediately move the casualty to fresh air and keep comfortable for breathing. Obtain immediate medical advice/attention in case of dizziness, drowsiness or respiratory distress. Skin contact: Immediately remove contaminated clothing and shoes. Wash skin with plenty of soap and water for at least 15 minutes. Consult a doctor if irritation or redness develops. Wash clothing before reuse. Eye contact: Keeping eyelids open, rinse cautiously with lukewarm, gently flowing water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist if irritation persists. Ingestion: Rinse mouth with plenty of water. DO NOT induce vomiting unless instructed by medical personnel. If the casualty is conscious, give 1-2 glasses of water. Immediately contact 114 UZEM or the nearest healthcare facility (risk of ethylene glycol poisoning).

4.2. Important symptoms/effects: Severe eye redness, tearing and stinging; dizziness, drowsiness and central nervous system depression upon inhalation of vapours; nausea, vomiting, metabolic acidosis and delayed kidney/organ effects if swallowed.

4.3. Indication of special treatment: Provide symptomatic and supportive treatment. In case of ethylene glycol exposure, monitor kidney function and assess the poisoning protocol.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media: Alcohol-resistant foam, dry chemical powder (ABC), carbon dioxide (CO2) or water spray/mist. Do not use a direct high-pressure water jet (may spread fire).

5.2. Special hazards arising from the mixture: Flammable liquid and vapour. Thermal decomposition during fire may release carbon monoxide (CO), carbon dioxide (CO2) and irritating organic vapours. Vapours are heavier than air, may spread along the ground and reach distant ignition sources.

5.3. Advice for firefighters: Wear self-contained breathing apparatus (SCBA) and full protective firefighting clothing. Cool exposed containers with water spray. Prevent firefighting water from entering the environment and drains.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions and emergency procedures: Immediately remove all ignition sources (open flames, smoking, sparks). Provide adequate ventilation. Do not breathe vapours. Use personal protective equipment (nitrile gloves, safety goggles) specified in Section 8. The spill surface is extremely slippery.

6.2. Environmental precautions: Prevent product from entering drains, surface water, groundwater and soil. Notify environmental authorities immediately in case of large spills.

6.3. Methods for containment and cleaning up: Contain and collect using inert absorbent material (sand, diatomaceous earth, universal binder) and non-sparking equipment. Transfer to labelled, leak-tight containers. Wash the residual area with plenty of water.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling: Work in well-ventilated areas. Take earthing precautions against static discharge. Avoid eye and skin contact. Do not eat, drink or smoke during use. Wash hands thoroughly after work.

7.2. Conditions for safe storage: Store in original, tightly closed HDPE packaging between 5 °C and 35 °C, away from direct sunlight, heat sources and strong oxidising agents. Shelf life under correct storage conditions is 24 months (2 years).

7.3. Specific end uses: Add to the AdBlue tank at the recommended dosage (0,25% - 0,50% v/v) to prevent urea crystallisation in vehicle SCR systems.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters / occupational exposure limits: Substance name, CAS No, TWA (8 hours), STEL (15 min.), source / regulatory reference: Isopropyl alcohol (IPA) 67-63-0: 200 ppm (490 mg/m³), 400 ppm (980 mg/m³), ACGIH TLV / TR OEL (NIOSH REL: 400 ppm TWA / 500 ppm STEL). Monoethylene glycol (vapour) 107-21-1: 20 ppm (52 mg/m³), 40 ppm (104 mg/m³), TR OEL / 2000/39/EC (skin notation).

8.2. Exposure controls: Engineering controls: Provide general and local forced ventilation. Keep airborne concentrations below exposure limits. Provide an eyewash station. Eye / face protection: Wear close-fitting splash safety goggles meeting EN 166. Skin / hand protection: Nitrile or butyl rubber protective gloves meeting EN 374 (breakthrough time > 480 min, thickness 0.4 mm). Anti-static work clothing. Respiratory protection: When vapour concentration exceeds limits, wear a half-mask with a combined type A-P2 filter in accordance with EN 14387. LimaxBlue Crystal Preventer Additive Page 2 / 4

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties: Physical state and appearance: Liquid; clear, colourless to pale straw yellow (undyed). Upper/lower flammability limit: 2,0% - 12,0% (IPA/MEG basis). Colour / odour: Naturally transparent / slightly alcoholic. Vapour pressure (20 °C): 2,8 kPa (calculated). pH (100% direct, 20 °C): 6,5 - 7,5 (formulation buffer range). Vapour density (air=1): > 1,0 (heavier than air). Density (20 °C) (ASTM D4052): 1,020 - 1,035 g/cm³. Solubility (in water): Completely miscible (100% soluble). Melting / freezing point: -8 °C ± 1 °C (ASTM D1177). Partition coefficient (n-octanol/water): log Kow < 0 (low bioaccumulation). Initial boiling point: 94 °C (ASTM D1120). Auto-ignition temperature: > 399 °C. Flash point: 38 °C ±1 °C - calculated/estimated value. Evaporation rate (butyl acetate=1): < 1,0 (slow). Kinematic viscosity (20 °C): 2,0 - 3,5 mm²/s (ASTM D445). Surface tension (20 °C): 30 - 38 mN/m. Explosive / oxidising properties: Not explosive/oxidising.

9.2. Other information: Refractive index (20 °C): 1,358 - 1,364.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: No hazardous reaction under normal storage and use conditions.

10.2. Chemical stability: Chemically stable under recommended temperature and storage conditions.

10.3. Possibility of hazardous reactions: Risk of exothermic reaction upon contact with strong oxidising agents.

10.4. Conditions to avoid: Excessive heat, open flames, sparks, static discharge and direct sunlight.

10.5. Incompatible materials: Strong acids, strong bases, strong oxidising agents, halogens.

10.6. Hazardous decomposition products: CO, CO2 and organic decomposition fumes in case of fire (Section 5).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes: Calculated mixture acute toxicity estimate (ATE mix): • ATE mix (oral): > 3.100 mg/kg (exceeds the acute oral Cat. 4 limit; not directly classified). • ATE mix (dermal): > 5.000 mg/kg (not classified). • ATE mix (inhalation - vapour): > 20 mg/l (not classified). Skin corrosion / irritation: Does not meet classification criteria for mild skin contact. Serious eye irritation: Eye Irritation Category 2 (H319). H319 is confirmed because IPA (10%), nonionic wetting

agent (1,5%) and sodium benzoate (1,0%) exceed the 10% threshold under the CLP Section 3.3 summation method. Respiratory / skin sensitisation: Contains no sensitising components. Mutagenicity / carcinogenicity: Contains no substances listed as carcinogenic or mutagenic under IARC, NTP or EU CLP. Reproductive toxicity: Contains no components with harmful effects on the reproductive system. STOT single exposure: Category 3 (H336). Inhalation of IPA (10%) vapours may cause drowsiness and dizziness. STOT repeated exposure: Category 2 (H373). As MEG (15% w/w) exceeds the STOT RE 2 generic concentration limit (GCL = 10%) under CLP Annex I Section 3.9, the mixture is classified H373: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral). Aspiration hazard: Does not meet aspiration hazard criteria. LimaxBlue Crystal Preventer Additive Page 3 / 4

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity (aquatic ecotoxicity): The mixture is not classified as hazardous to the environment. • Fish toxicity (LC50, 96 h, Pimephales promelas): > 1.000 mg/l (MEG/IPA/benzoate calculation). • Daphnia toxicity (EC50, 48 h, Daphnia magna): > 500 mg/l. • Algal toxicity (EC50, 72 h, Pseudokirchneriella subcapitata): > 1.000 mg/l.

12.2. Persistence and degradability: Organic components of the mixture (MEG, IPA, sodium benzoate) are > 80% biodegradable within 28 days according to OECD 301E test standards. Readily biodegradable.

12.3. Bioaccumulative potential: As component log Kow values are < 0, bioaccumulation in aquatic organisms is not expected.

12.4. Mobility in soil: Completely miscible with water. Highly mobile in soil.

12.5. Results of PBT and vPvB assessment: The mixture contains no PBT or vPvB substances.

12.6. Endocrine-disrupting properties: Contains no components with environmental endocrine-disrupting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods: Product waste and contaminated packaging must be delivered to authorised licensed waste facilities in accordance with the Waste Management Regulation. Do not discharge into drains or soil. Waste code (Waste Catalogue): 07 07 04* (aqueous washing liquids from organic chemical processes) / 15 01 10* (packaging containing residues of hazardous substances).

SECTION 14: TRANSPORT INFORMATION Transport parameter: ADR / RID (road), IMDG (sea), IATA / ICAO (air).

14.1. UN number: UN 1987, UN 1987, UN 1987.

14.2. Proper shipping name: ALCOHOLS, N.O.S. (contains isopropyl alcohol); ALCOHOLS, N.O.S. (Contains Isopropanol); ALCOHOLS, N.O.S. (Contains Isopropanol).

14.3. Transport hazard class: 3 (flammable liquid), 3 (Flammable Liquid), 3 (Flammable Liquid).

14.4. Packing group: III (low danger), III, III.

14.5. Environmental hazards: Not hazardous to the environment; Marine Pollutant: No; Not hazardous to the environment.

14.6. Special precautions for user: Tunnel restriction code: (D/E). Limited quantity (LQ): 5 litres. Transport upright, secured in closed original packaging.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations specific to the substance or mixture: • Turkish legislation: TR SEA Regulation No 28848; TR KKDİK Regulation No 30105 (Annex -2 SDS Preparation Guide); TR SDS Regulation No 29204. • EU legislation: Regulation (EC) No 1907/2006 (REACH) Annex II, Regulation (EU) 2020/878, Regulation (EC) No 1272/2008 (CLP).

15.2. Chemical safety assessment: A chemical safety assessment (CSA/CSR) has not yet been carried out at mixture level; supplier registration records are available at raw-material level.

SECTION 16: OTHER INFORMATION Revision information: Revision 2.3 / Format Revision R06 - 18.10.2026. This is the final version reformatted on the basis of the R02 optimised production recipe, in 100% compliance with EU (EU) 2020/878 and Türkiye KKDİK Annex -2 guidance. Full text of H statements (Sections 2 and 3): • H225: Highly flammable liquid and vapour. | H226: Flammable liquid and vapour. | H302: Harmful if swallowed. | H319: Causes serious eye irritation. | H332: Harmful if inhaled. | H336: May cause drowsiness or dizziness. | H373: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral). Abbreviations: STOT: Specific target organ toxicity; ATE: Acute toxicity estimate; OEL: Occupational exposure limit; NIOSH: National Institute for Occupational Safety and Health; ADR: Transport of Dangerous Goods by Road. Certified SDS document author / certified expert details: • Document author / Author: İrem

BEKTAŞ KART • Certificate No / Certificate number: GBF-A-0-2732 • Certificate valid until: 09/02/2027 • Contact: irem@bekkdanismanlik.com | LİMA DIŞ TİCARET VE TEKNOLOJİ A.Ş. Address update • 19.10.2026 / R06-A1: Section 1.3 head office address updated to Trump Towers. R06 technical content preserved. No new expert approval is claimed for this address revision. LimaxBlue Crystal Preventer Additive Page 4 / 4