



ALCO QUALITY ASSURANCE LABORATORY
TEST REPORT
Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21



Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 2024344
Date of issue: 04/03/2024

Test sample

Product: AVTOIL M-8 V-M 20W20
Batch number: 2403344
Tank ID: T41.3

Manufacture date: 04/03/2024
Date of sampling: 04/03/2024
Date of analysis: 04/03/2024

Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm ² /s	ASTM D445	7.5-8.5	7.948	Pass
Viscosity index	-	ASTM D2270	Min. 93	102	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 208	226	Pass
Pour Point	°C	ASTM D97	Max. -25	-25	Pass
Color, with a dilution of 15:85, units of the CNT	-	ГОСТ 20284	Max. 3.5	0.7	Pass
Density at 20 °C	g/cm ³	ASTM D4052	Max. 0.905	0.8784	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

	ALCO QUALITY ASSURANCE LABORATORY TEST REPORT Accreditation No. AZS ISO/IEC 17025 2020/AZ 01 0571 01 21	 AZERBAIJAN ACCREDITATION CENTER
---	---	--

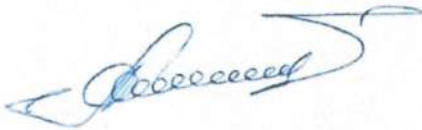
Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised signatory



**Allahverdieva Aytan
Head of Laboratory**



**Isgandarli Nazrin
Chemical Engineer**





ALCO QUALITY ASSURANCE LABORATORY
TEST REPORT
Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21



Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 2024330
Date of issue: 04/03/2024

Test sample

Product: AVTOIL M-10G2K
Batch number: 2402330
Tank ID: T41.2

Manufacture date: 29/02/2024
Date of sampling: 29/02/2024
Date of analysis: 29/02/2024

Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm ² /s	ASTM D445	10.5-11.5	11.42	Pass
Viscosity index	-	ASTM D2270	Min. 85	95	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 210	242	Pass
Pour Point	°C	ASTM D97	Max. -15	-18	Pass
Color, with a dilution of 15:85, units of the CNT	-	ASTM D1500	Max. 4.0	0.8	Pass
Density at 20 °C	g/cm ³	ASTM D4052	Max. 0.905	0.8864	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

	<p>ALCO QUALITY ASSURANCE LABORATORY TEST REPORT Accreditation No: AZS ISO/IEC 17025 2020/AZ 01 0571 01 21</p>	
---	--	---

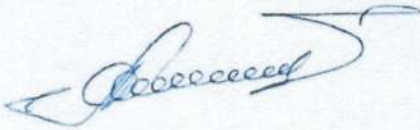
Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised signatory



Allahverdieva Aytan
Head of Laboratory



Isgandarli Nazrin
Chemical Engineer



	<p style="text-align: center;">ALCO QUALITY ASSURANCE LABORATORY TEST REPORT</p> <p style="text-align: center;">Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21</p>	
---	--	---

Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 2024630
Date of issue: 26/04/2024

Test sample

Product: AVTOIL 5W30 SN/CF
Batch number: 2404630
Tank ID: T41.4

Manufacture date: 26/04/2024
Date of sampling: 26/04/2024
Date of analysis: 26/04/2024

Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm ² /s	ASTM D445	9.30-12.50	11.51	Pass
Viscosity index	-	ASTM D2270	Min. 140	151	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 210	224	Pass
Pour Point	°C	ASTM D97	Max. -36	-39	Pass
Color	-	ASTM D1500	Test & Report	3.4	Pass
TBN	mgKOH/g	ASTM D2896	Min.7.0	8.147	Pass
Density at 15 °C	g/cm ³	ASTM D4052	Test & Report	0.8646	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised signatory



Allahverdiyeva Aytan
Head of Laboratory



Isgandarli Nazrin
Lead Chemical Engineer



	<p style="text-align: center;">ALCO QUALITY ASSURANCE LABORATORY TEST REPORT</p> <p style="text-align: center;">Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21</p>	
---	--	---

Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 2024617
Date of issue: 24/04/2024

Test sample

Product: AVTOIL 10W40 SG/CD
Batch number: 2404617
Tank ID: T41.4

Manufacture date: 23/04/2024
Date of sampling: 23/04/2024
Date of analysis: 23/04/2024

Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm ² /s	ASTM D445	12.5-16.3	14.69	Pass
Viscosity index	-	ASTM D2270	Min. 120	137	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 210	230	Pass
Pour Point	°C	ASTM D97	Max. -30	-33	Pass
Color	-	ASTM D1500	Test & Report	2.8	Pass
Density at 15 °C	g/cm ³	ASTM D4052	Test & Report	0.8733	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised signatory



Allahverdiyeva Aytan
Head of Laboratory



Isgandarli Nazrin
Lead Chemical Engineer



QUALITÄTS-ZERTIFIKAT

Auftraggeber: LLC JV Yukoil
UA

Telefax: 00 380 61 222 80 35

Bezeichnung: WOLVER TURBO TRUCK SAE 10W-40

Spezifikation: API CI-4 + UHPD, ACEA E6-, E7-, E9-08

Paketvolumen: Blecheimer 20 L

Batch-Nr.: 1606/240310/047/01

Beschreibung	Ist-Wert	Einheit	Prüfmethode
Dichte bei 15,6°C	858,9	kg/m ³	ASTM D1298
Viskosität bei 100°C	15,89	mm ² /s	ASTM D445
Viskositätsindex	150	---	ASTM D2270
Flammpunkt COC	228	°C	ASTM D92
Stockpunkt	- 43	°C	ASTM D97
TBN	9,56	mg KOH/g	ASTM D2896

Gebinde jeglicher Art sind möglichst überdacht aufzubewahren. Bei einer ungeschützten Lagerung im Freien ohne Überdachung sind die Öldrums liegend zu lagern, um ein Eindringen von Wasser zu vermeiden und die Lesbarkeit der Beschriftungen zu erhalten. Die Produkte sollten nicht bei Temperaturen über +60 °C gelagert werden. Sie sind vor direkter Sonneneinstrahlung bzw. Frost zu schützen.

Dieses Schreiben ist maschinell erstellt und ohne Unterschrift gültig.

Der Gehalt an Erdölprodukten als Hauptbestandteil: 91,41
Der Gehalt an Additiven: 8,59
Grundöl Typ: Mineralöl
Accept Ansprüche für Qualität: Wolver Lab GmbH oder ihre Bevollmächtigter.



Wolver Turbo Truck 10W-40

VERPACKUNG

208L | 60 L | 20L

Wolver Turbo Truck 10W-40 - HC - синтетическое, высокоэффективное дизельное моторное масло нового поколения. Разработано специально для дизельных двигателей с нормами токсичности EBPO 5 и EBPO 6 с последующей системой обработки выхлопных газов (сажевым фильтром). Чтобы система обработки работала безотказно и исправно, необходимо использование моторного масла с Low SAPS (низкий уровень зольности) технологией.

Wolver Turbo Truck 10W-40 можно использовать в дизельных двигателях с нормой токсичности EBPO 4, а так же в двигателях с сажевым фильтром с низким содержанием серы (макс. 50 ppm.). Качественные базовые масла в комплексе со специально разработанными присадками гарантируют уменьшение содержания сульфатной зольности, фосфора и серы.

Wolver Turbo Truck 10W-40 разработано для применения в высоко-нагруженных дизельных двигателях коммерческих автомобилей в различных условиях эксплуатации. Это масло для UHPD-двигателей имеет максимальный интервал замены (до 100.000 км, - в зависимости от рекомендаций производителя) и используется для всех грузовых автомобилей, строительных машин, автобусов, сельскохозяйственного транспорта и т.д.

Wolver Turbo Truck 10W-40 соответствует требованиям европейских и североамериканских производителей транспортных средств.

СПЕЦИФИКАЦИИ:

SAE 10W-40
API CI-4 + UHPD
ACEA E6-, E7-, E9-08

ДОПУСКИ:

MB-Approval 228.51

СООТВЕТСТВУЕТ:

MAN M 3477, M 3271-1
MB (226.9), VOLVO VDS-3 , CNG
CATERPILLAR ECF-1a
CUMMINS CES 20076/77
DAF Long drain
DEUTZ DQC-IV-10 LA
JASO DH-2
MACK EO-N / EO-M Plus
MTU Typ 3.1
RVI (Renault) RLD-2, RXD, RGD
SCANIA Low Ash

Свойства

- Low Saps (Low Ash) технология
- Экстремальная износостойчивость
- Необычная устойчивость к старению и окислению
- Препятствует образованию осадков при высоких температурах
- Низкая испаряемость
- Исключительные вязкостно-температурные показатели
- Отличные смазочные свойства при высоких температурах

Эффективность

- Специально для двигателей нового поколения EВРО 5 и EВРО6
- Улучшенная экономичность благодаря более длинным интервалам замены (до 100.000 км)
- Способствует снижению потребления топлива
- Минимальный износ при высоких нагрузках на приводные части
- Всесезонное применение
- Защита от образования зеркальных поверхностей
- Абсолютно чистый двигатель и сажевый фильтр

Применение

- в дизельных двигателях коммерческих автомобилей
- в многоклапанной технике
- с турбонаддувом, с катализатором
- с сажевым фильтром

Устранение отходов

Отработанное масло **Wolver Turbo Truck 10W-40** относится к отходам 2-ой категории и подлежит утилизации в специально отведенных местах.

Совместимость

Wolver Turbo Truck 10W-40 совместимо со всеми традиционными маслами и может быть смешано с любым из них. Для того, чтобы использовать все преимущества **Wolver Turbo Truck 10W-40** рекомендуется применять **Wolver Turbo Truck 10W-40** не смешивая.

ПОКАЗАТЕЛЬ	ЕД. ИЗМ.	ТИПИЧНОЕ ЗНАЧЕНИЕ
Кинематическая вязкость при 100°C	mm ² /s	15.3
Индекс вязкости	-	150
Температура застывания	°C	-33
Вязкость CCS при -25°C	mPa·s	6800
Щелочное число	mgKOH/g	10.3
Температура вспышки	°C	230
Плотность при 15,6°C	kg/m ³	872

20л - ведро 4187 4260360941870

208л - бочка 4186 4260360941863

	<p style="text-align: center;">ALCO QUALITY ASSURANCE LABORATORY TEST REPORT</p> <p style="text-align: center;">Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21</p>	
---	--	---

Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 20241022-1
Date of issue: 05/07/2024

Test sample

Product: AVTOIL 15W40 SG/CD
Batch number: 24071022-1
Tank ID: T41.2

Manufacture date: 02/07/2024
Date of sampling: 02/07/2024
Date of analysis: 02/07/2024

Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm ² /s	ASTM D445	12.5-16.3	13.90	Pass
Viscosity index	-	ASTM D2270	Min. 120	148	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 215	238	Pass
Pour Point	°C	ASTM D97	Max. -30	-30	Pass
Color	-	ASTM D1500	Test & Report	2.5	Pass
Density at 15 °C	g/cm ³	ASTM D4052	Test & Report	0.8700	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.



ALCO QUALITY ASSURANCE LABORATORY
TEST REPORT
Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21



Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised signatory

Allahverdiyeva Aytan
Head of Laboratory

Isgandarli Nazrin
Lead Chemical Engineer



ALCO QUALITY ASSURANCE LABORATORY
TEST REPORT
Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21



Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 2024300
Date of issue: 26/02/2024

Test sample

Product: AVTOIL 80W90 GL-5
Batch number: 2402300
Tank ID: T41.4

Manufacture date: 26/02/2024
Date of sampling: 26/02/2024
Date of analysis: 26/02/2024



Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm ² /s	ASTM D445	13.5-18.5	15.19	Pass
Viscosity index	-	ASTM D2270	Min. 90	101	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 200	224	Pass
Pour Point	°C	ASTM D97	Max. -30	-30	Pass
Color.	-	ASTM D1500	Max. 6.0	3.9	Pass
Density at 20 °C	g/cm ³	ASTM D4052	Test & Report	0.8871	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

	<p>ALCO QUALITY ASSURANCE LABORATORY TEST REPORT Accreditation No: AZS ISO/IEC 17025 2020/AZ 01 0571 01 21</p>	 <p>AZERBAIJAN ACCREDITATION CENTER</p>
---	--	--

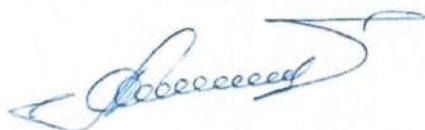
Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised signatory



Allahverdieva Aytan
Head of Laboratory



Isgandarli Nazrin
Chemical Engineer



	<p style="text-align: center;">ALCO QUALITY ASSURANCE LABORATORY TEST REPORT</p> <p style="text-align: center;">Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21</p>	
---	--	---

Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 20241078
Date of issue: 09/07/2024

Test sample

Product: AVTOIL TAD 17 85W90 GL-5
Batch number: 24071078
Tank ID: T45.1

Manufacture date: 09/07/2024
Date of sampling: 09/07/2024
Date of analysis: 09/07/2024

Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm ² /s	ASTM D445	Min. 17.50	18.11	Pass
Viscosity Index	-	ASTM D1500	Min. 100	104	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 200	236	Pass
Pour Point	°C	ASTM D97	Max. -25	-35	Pass
Color	-	ASTM D1500	Test & Report	4.1	Pass
Density at 15°C	g/cm ³	ASTM D4052	Test & Report	0.8896	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.



ALCO QUALITY ASSURANCE LABORATORY
TEST REPORT
Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21



Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised singnatory

Allahverdiyeva Aytan
Head of Laboratory

Isgandarli Nazrin
Lead Chemical Engineer

	<p style="text-align: center;">ALCO QUALITY ASSURANCE LABORATORY TEST REPORT</p> <p style="text-align: center;">Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21</p>	
---	--	---

Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 20241054
Date of issue: 05/07/2024

Test sample

Product: AVTOIL TAP 15B 90 GL-3
Batch number: 24071054
Tank ID: T45.2

Manufacture date: 04/07/2024
Date of sampling: 04/07/2024
Date of analysis: 04/07/2024

Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm ² /s	ASTM D445	14.0-16.0	15.21	Pass
Viscosity index	-	ASTM D2270	Min. 90	100	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 185	240	Pass
Pour Point	°C	ASTM D97	Max. -20	<-23	Pass
Color.	-	ASTM D1500	Test & Report	3.9	Pass
Density at 15 °C	g/cm ³	ASTM D4052	Test & Report	0.8877	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.



ALCO QUALITY ASSURANCE LABORATORY
TEST REPORT
Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21



Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised singnatory

Allahverdiyeva Aytan
Head of Laboratory

Isgandarli Nazrin
Lead Chemical Engineer

ПАСПОРТ / PASSPORT № 399

Олива веретенна АУ

Spindle Oil AU

ТУ 38.1011232-89 / TU 38.1011232-89

Партія / Party № 4Резервуар / Tank № 28Маса / Net mass 5600 кг / kgДата виготовлення / Date of manufacture
10.12. 2024 p./y.

Physical and chemical parameters

№№	Найменування показника / Properties	Норма / Norma	Фактично / Fact	Метод випробування / Test method
1.	В'язкість кінематична, мм ² /с: при 40°C, у межах при мінус 40°C, не більше	16-22 14000	20.15 13258	ДСТУ ГОСТ 33
	Viscosity, Kinematic, mm ² s ⁻¹ : at 100°C at minus 40°C	16 – 22 Max 14000		DSTU GOST 33
2.	Кислотне число, мг КОН на 1г оливи, не більше	0,07	0.05	ГОСТ 5985
	Acid Number, mg KOH/g	Max 0.07		GOST 5985
3.	Зольність, %, не більше	0.005	0.004	ГОСТ 1461
	Ash, %	Max 0.005		GOST 1461
4.	Випробування на корозію	витримує	витримує Withstand	ДСТУ ГОСТ 2477
	Corrosion Test	Withstand		DSTU GOST 2477
5.	Вміст водорозчинних кислот та лугів	Відсутність. Припустима лужна реакція	No	ГОСТ 6307
	Water-soluble acids and alkalis	No. Acceptable alkaline reaction		GOST 6307
6.	Масова частка механічних домішок, %, не більше	0,01	0.007	ДСТУ ГОСТ 6370
	Mechanical impurities, wt.%	Max 0.01		DSTU GOST 6370
7.	Вміст води	відсутність	відсутність No	ДСТУ ГОСТ 2477 і п.4.3 ТУ 38.1011232-89
	Water	No		DSTU GOST 2477 and p.4.3 TU 38.1011232-89
8.	Колір на колориметрі ЦНТ, од. ЦНТ, не більше	2,5	1.5	ГОСТ 20284
	Color CNT, units CNT	Max 2.5		GOST 20284
9.	Температура спалаху, що визначається у відкритому тиглі, °C, не нижче	165	182	ДСТУ ГОСТ 4333
	Flash Point, °C	Min 165		DSTU GOST 4333
10.	Температура застигання, °C, не вище	мінус 45	мінус 46 minus 46	ГОСТ 13538
	Pour Point, °C	Max minus 45		GOST 13538
11.	Густина при 20°C, кг/м ³ , не більше	890	878.1	ГОСТ 3900
	Density at 20°C, kg/m ³	Max 890		GOST 3900
12.	Масова частка сірки, %, не більше	0,3	0.19	ГОСТ 1437
	Sulfur, %	Max 0.3		GOST 1437
13.	Вміст фенолу	відсутність	відсутність No	ГОСТ 1057
	Phenol	No		GOST 1057

Висновок: Олива веретенна АУ ТУ 38.1011232-89.

Conclusion: Spindle Oil AU TU 38.1011232-89.

Гарантійний термін зберігання оливи - 5 років від дня виготовлення за умови її зберігання згідно з ДСТУ 4454.

The warranty period of oil storage is 5 years from the date of manufacture, provided it is stored in accordance with DSTU 4454.



Інженер ЦЗЛ / Engineer CPL _____

Ст. лаборант / Senior laboratory _____

Дата видачі паспорту / Date of issue 13.12. 2024 p./y.

	<p style="text-align: center;">ALCO QUALITY ASSURANCE LABORATORY TEST REPORT</p> <p style="text-align: center;">Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21</p>	
---	--	---

Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 20241029
Date of issue: 02/07/2024

Test sample

Product: AVTOIL INDUSTRIAL HYDRAULIC HLP 46
Batch number: 24071029
Tank ID: T45.2

Manufacture date: 02/07/2024
Date of sampling: 02/07/2024
Date of analysis: 02/07/2024

Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 40 °C	mm ² /s	ASTM D445	41.4-50.6	46.09	Pass
Viscosity index	-	ASTM D2270	Min. 90	108	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 185	224	Pass
Pour Point	°C	ASTM D97	Max. -24	-24	Pass
Color	-	ASTM D1500	Test & Report	2.0	Pass
Density at 15 °C	g/cm ³	ASTM D4052	Test & Report	0.8719	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.



ALCO QUALITY ASSURANCE LABORATORY
TEST REPORT
Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21



Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised singnatory

Allahverdiyeva Aytan
Head of Laboratory

Isgandarli Nazrin
Lead Chemical Engineer

	<p style="text-align: center;">ALCO QUALITY ASSURANCE LABORATORY TEST REPORT</p> <p style="text-align: center;">Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21</p>	
---	--	---

Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 2024864
Date of issue: 05/06/2024

Test sample

Product: AVTOIL ATF III RED
Batch number: 2406864
Tank ID: T41.1

Manufacture date: 05/06/2024
Date of sampling: 05/06/2024
Date of analysis: 05/06/2024

Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm ² /s	ASTM D445	Min. 7.000	8.374	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 185	236	Pass
Color	-	ASTM D1500	RED	RED	Pass
Density at 15 °C	g/cm ³	ASTM D4052	Test & Report	0.8747	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised singnatory



Allahverdiyeva Aytan
Head of Laboratory



Isgandarli Nazrin
Lead Chemical Engineer



ПАСПОРТ / PASSPORT № 395

Олива рушнична / Oil armory

РЖ / RZh

ТУ У 19.2-20574128-057:2017 /

ТУ У 19.2-20574128-057:2017

Партія / Party № 4Резервуар / Tank № 38Маса / Net mass 2750 кг / kg

Дата виготовлення / Date of manufacture

06.12. 2024 p./y.

Physical and chemical parameters

№№	Найменування показника / Properties	Норма / Norma	Фактично / Fact	Метод випробування / Test method
1.	В'язкість кінематична при 50°C, мм ² /с, не менше Viscosity, Kinematic at 50°C, mm²s⁻¹:	6,0 Min 6.0	7.41	ДСТУ ГОСТ 33 DSTU GOST 33
	Температура застигання, °С, не вище Pour Point, °C	мінус 40 Max Minus 40		ГОСТ 20287, метод Б GOST 20287, method B
3.	Корозійний вплив на метал	витримує	витримує Withstand	ГОСТ 2917 з доп. за п.6.4 ТУУ 19.2-20574128-057:2017 GOST 2917 with ad. by p.6.4 TUU 19.2-20574128-057:2017
	Corrosive to metal	Withstand		
4.	Захисні властивості, площа корозійного ураження, %, не більше: при підвищених значеннях відносної вологості і температури повітря	0	0	ГОСТ 9.054 з доп. за п.6.5 ТУУ 19.2-20574128-057:2017 GOST 9.054 with ad. by p.6.5 TUU 19.2-20574128-057:2017
	Protective Properties, area of corrosive damage, %: at elevated values of relative humidity and air temperature	0		
5.	Вміст води, % Water Content	сліди Trace	сліди Trace	ДСТУ ГОСТ 2477 DSTU GOST 2477
	Масова частка механічних домішок, %, не більше Mechanical Impurities Content, wt. %	0,05 Max 0.05		0.02

Висновок: олива РЖ відповідає ТУ У 19.2-20574128-057:2017.

Conclusion: Oil RZh corresponds to TU U 19.2-20574128-057:2017.

Гарантійний термін зберігання оливи - 5 років від дня виготовлення за умови її зберігання згідно з ДСТУ 4454.

The warranty period of oil storage is 5 years from the date of manufacture, provided it is stored in accordance with DSTU 4454.

Інженер ЦЗЛ / Engineer CPL _____

Ст. лаборант / Senior laboratory _____

Дата видачі паспорту / Date of issue 09.12. 2024 p./y.

ПАСПОРТ / PASSPORT № 394

Олива рушнична / Oil armory

РЖ / RZh

ТУ 38.1011315-90 / TU 38.1011315-90

Партія / Party № 5Резервуар / Tank № 34Маса / Net mass 2540 кг / kgДата виготовлення / Date of manufacture
05.12. 2024 p./y.

Physical and chemical parameters

№№	Найменування показника / Properties	Норма / Norma	Фактично / Fact	Метод випробування / Test method
1.	В'язкість кінематична, мм ² /с: при 50°C, не менше при мінус 50°C, не більше	6,0 1500	6.32 1420	ДСТУ ГОСТ 33
	Viscosity, Kinematic, mm ² s ⁻¹ : at 50°C at minus 50°C	Min 6.0 Max 1500		DSTU GOST 33
2.	Температура застигання, °C, не вище	мінус 60	Minus 61	ГОСТ 20287, метод Б
	Pour Point, °C	Max Minus 60		GOST 20287, method B
3.	Корозійний вплив на метал	витримує	витримує Withstand	ГОСТ 2917 з доп. за п.5.2 ТУ 38.1011315-90
	Corrosive to metal	Withstand		GOST 2917 with ad. by p.5.2 TU 38.1011315-90
4.	Захисні властивості, площа корозійного ураження, %, не більше: при підвищених значеннях відносної вологості і температури повітря	0	0	ГОСТ 9.054 з доп. за п.5.3 ТУ 38.1011315-90
	Protective Properties, area of corrosive damage, %: at elevated values of relative humidity and air temperature	0		GOST 9.054 with ad. by p.5.3 TU 38.1011315-90
5.	Вміст води, %	відсутність	відсутність No	ГОСТ 1547
	Water Content	No		GOST 1547
6.	Масова частка механічних домішок, %, не більше	0,05	0.01	ДСТУ ГОСТ 6370 з доп. за п.5.4 ТУ 38.1011315-90
	Mechanical Impurities Content, wt. %	Max 0.05		DSTU GOST 6370 with ad. by p.5.4 TU 38.1011315-90

Висновок: олива РЖ відповідає ТУ 38.1011315-90.

Conclusion: Oil RZh corresponds to TU 38.1011315-90.

Гарантійний термін зберігання оливи - 5 років від дня виготовлення за умови її зберігання згідно з ДСТУ 4454.

The warranty period of oil storage is 5 years from the date of manufacture, provided it is stored in accordance with DSTU 4454.

Інженер ЦЗЛ / Engineer CPL _____

Ст. лаборант / Senior laboratory _____

Дата видачі паспорту / Date of issue 09.12. 2024 p./y.

	<p style="text-align: center;">ALCO QUALITY ASSURANCE LABORATORY TEST REPORT</p> <p style="text-align: center;">Accreditation No: AZS ISO/IEC 17025:2020/AZ 01.0571.01.21</p>	
---	--	---

Company: ALCO LLC
3, Vali Mammadov st., Sabail dist.
AZ1095, Baku, Azerbaijan

Certificate No.: 2024759
Date of issue: 13/05/2024

Test sample

Product: AVTOIL Двухтактное 2Т
Batch number: 2405759
Tank ID: T41.4

Manufacture date: 13/05/2024
Date of sampling: 13/05/2024
Date of analysis: 13/05/2024

Test result

Parameters	Unit	Test method	Limit	Test result	Conclusion
Appearance	-	Visual	Bright & Clear	Bright & Clear	Pass
Kinematic viscosity at 100 °C	mm ² /s	ASTM D445	Min. 6.0	8.723	Pass
Viscosity index	-	ASTM D2270	Min. 95	106	Pass
Water content	%	ASTM D95	Max. 0.05	None	Pass
Flash Point, COC	°C	ASTM D92	Min. 200	246	Pass
Pour Point	°C	ASTM D97	Max. -15	<-21	Pass
Color	-	ASTM D1500	RED	RED	Pass
Density at 15 °C	g/cm ³	ASTM D4052	Test & Report	0.8833	Pass

ALCO QUALITY ASSURANCE LABORATORY accredited by AzAK for AZS ISO/IEC 17025:2020 at test laboratory.

Shelf life: 5 years from the date of manufacture of the product if proper storage conditions are followed.

This product meets the specification set out in its product data sheet (PDS) and has been manufactured in a facility fully complying with the requirements of Integrated Management System standards.

Notes & Instructions:

- Tests conducted according to International Standard Test Methods are routinely verified to be in compliance with the latest published versions. Minor changes may be made where they have no material impact on test results and are necessitated by reasons such as safety, environmental standards and method effectiveness.
- This certificate is only valid in its entirety.
- This certificate shall not be reproduced except in full, without the written approval of the laboratory.

Authorised singnatory



Allahverdiyeva Aytan
Head of Laboratory



Isgandarli Nazrin
Lead Chemical Engineer





Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 1 of 16
------------------	--------------	-----------------------	--------------

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1 Product identifier	
Mixture name	Brake fluid DOT - 4
Trade name	Brake fluid DOT - 4
Identified uses	Brake fluid for all kind of trucks and passenger cars.
Uses advised against	Any other use.
Manufacturer	Cherkasy Autochemistry Plant LLC 18003, Ukraine, Cherkasy Vyacheslava Chornovola, 118, PO Box 729 tel/fax: +38 (0472) 64-61-60 e-mail: site@vamp.ua website: www.vamp.ua
1.4 Emergency telephone number	
112 (Please note that emergency numbers may vary depending upon the country of delivery though 112 remains valid as universal number)	


2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture	
Classification according to Regulation (EC) No 1272/2008 (CLP)	Additional information
Acute toxicity, Category 4, oral; Specific Target Organ Toxicity (repeated exp.), Category 2; Affected organs: kidney Route of exposure: Oral	H302: Harmful if swallowed. H373: May cause damage to organs through prolonged or repeated exposure Full text of P- H- phrases see section 16
Human Health effects	
Inhalation	Slight irritation in the upper respiratory tract or bothersome effect;
Eyes	Slight irritation.
Skin	Slight irritation.
Swallowing	Dose-dependent absorptive effects. Nausea, stomachache, lethargy, drowsiness.
2.2 Label elements	



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 2 of 16
------------------	--------------	-----------------------	--------------

Product identifier	1,2-Ethanediol (Index # 603-027-00-1); 2,2'-oxydiethanol (Index # 603-140-00-6).
Hazard pictograms	
Signal word	Warning
Hazard statements	H302: Harmful if swallowed. H373: May cause damage to organs through prolonged or repeated exposure
Precautionary statements	P260: Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash with plenty of water and soap thoroughly after handling. P270 Do not eat, drink or smoke when using this product P301+P312+P330: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. rinse mouth. P314: Get medical advice/attention if you feel unwell. P501 Dispose of contents/ container in accordance with local regulations
Additional information	None
2.3 Other hazards	
The substances in mixture do not meet the criteria for PBT or vPvB according to Annex XIII of Regulation (EC) No.1907/2006 (REACH). Most of substances in mixture are combustible, difficult to ignite.	

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures (Hazardous ingredients and/or with relevant occupational exposure limits)

Chemical name	EC #	CAS #	Concentration, range %	Classification	Index #	Reach reg #
2,2'-oxydiethanol	203-872-2	111-46-6	≤90	Acute Toxicity, Cat. 4, Ingestion; H302	603-140-00-6-	01-2119457857-21



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 3 of 16
-------------------------	---------------------	------------------------------	---------------------

				STOT – rep. exp. Cat. 2; H373		
1,2-Ethanediol	203-473-3	107-21-1	>10	Acute Toxicity, Cat. 4, Ingestion; H302 Stot.rep., Cat. 2; H373	603-027-00-1	01-2119456816-28
2-aminoethanol	205-483-3	141-43-5	0,02	Acute Tox. 4 H302, H312, H332 Skin corrosion Cat. 1B; H314 Serious Eye Damage Cat 1; H318 Hazardous to the Aquatic Env. Chronic Cat. 3; H412 STOT SE 3; H335: C ≥ 5 %	603-030-00-8	-

The mixture does not contain other additives in quantities that could affect product's labelling and classification according to CLP.

4. FIRST AID MEASURES

4.1 Description of first aid measures	
In case of inhalation:	Inhalation of product is not expected. Keep patient calm, remove to fresh air, seek medical attention.
In case of eye contact:	Wash affected eyes for at least 15 minutes under running water with eyelids held open. Consult ophthalmologist if irritation persists.
In case of skin contact:	Wash affected area thoroughly with soap and water.
In case of ingestion:	Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.
4.2 Most important symptoms and effects, both acute and delayed	
In case of inhalation	Headache, dizziness, weakness. Due to the low vapor pressure under normal conditions, exposure to vapors is only toxicologically relevant when handling heated mixture.
In case of eye contact	slightly irritating effect on mucous membranes.



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 4 of 16
------------------	--------------	-----------------------	--------------

In case of skin contact	Slight irritation, redness, edema.
In case of ingestion	Headache, dizziness, weakness, vomiting, nausea, diarrhea, in case of severe poisoning: fainting, convulsions, damage to the kidneys.
Information to physician and first aider.	The risk of life-threatening poisoning should generally only exist after ingestion or very massive inhalation of aerosols. Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote
First aid arsenal	Universal medical kit with a set of drugs (in consultation with the medical department of the enterprise).
4.3 Indication of any immediate medical attention and special treatment needed	
Immediate medical attention is not usually expected.	

5. FIREFIGHTING MEASURES

5.1 Extinguishing media	
Suitable extinguishing media	Water spray, dry powder, alcohol-resistant foam, carbon dioxide
Unsuitable extinguishing media	Do not use direct water jets as water destroys the foam.
5.2 Special hazards arising from the substance or mixture	
Hazardous combustion products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide and carbon dioxide and minor amounts of nitrous oxides.
5.3 Advice for firefighters	
Combustible product, ignites from open flame. Cool containers with water from distance. Wear full fire-resistant protective clothing and self-contained breathing apparatus with a full face-piece operated in positive pressure mode for confined or poorly ventilated spaces	
Further information: The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.	

6. ACCIDENTAL RELEASE MEASURES.

6.1. Personal precautions, protective equipment and emergency procedures	
6.1.1. For non-emergency personnel	Avoid contact with skin and eyes. Use personal protective clothing. Stop or contain leak at the source if safe to do so. Avoid direct contact with released



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 5 of 16
------------------	--------------	-----------------------	--------------

	<p>material. Stay upwind. Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares).</p>
6.1.2. For emergency responders	<p>Body suit of chemically resistant and antistatic material. Work gloves providing adequate chemical resistance. Work helmet. Antistatic non-skid safety shoes or boots. Goggles if contact with eyes is possible. A half or full-face respirator with combined dust/organic vapor filter(s), or a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and fire presence. If release is accompanied with fire – see Section 5.3</p>
6.2 Environmental precautions	
<p>Do not empty into drains. Do not discharge into the subsoil/soil. Prevent product from entering soil, sewers, rivers, waterways or other bodies of water. Spills should be shielded with an earthen rampart.</p>	
6.3 Methods and material for containment and cleaning up	
<p>For large amounts: Pump off product. Dike the product and other contaminated materials to suitable corrosion resistant containers for recycle, recovery or safe disposal. The product can be absorbed with non-combustible materials e.g. sand and then collected. Flush the spill area with water. In case soil contamination in big quantities report to local authorities. For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).</p>	
6.4 Reference to other section	
<p>Information about personal precautions - see Section 8. Information about waste disposal - see Section 13.</p>	

7. HANDLING AND STORAGE

7.1 Precautions for safe handling	
General precautions for safe handling	<p>Use in well ventilated areas. Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing fumes or vapors.</p>
Fire preventions	<p>No smoking at working area. Take precautionary measures against static discharges.</p>



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 6 of 16
------------------	--------------	-----------------------	--------------

	Take precautionary measures against static electricity such as ensuring all equipment is electrically grounded. Electrical devices must meet the specified temperature class. Temperature class: T2 (Auto ignition temperature >300 °C).
Aerosol and dust generation preventions	Avoid spraying and mist formation if used with equipment under pressure.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face and remove contaminated clothing and protective equipment before entering eating areas.
Environmental precautions	Do not allow product to enter into surface water or drains.
7.2 Conditions for safe storage, including any incompatibilities	
Technical measures and storage conditions	Store indoors in a cool, dry, well-ventilated area, away from incompatible materials and heat at ambient temperature. Storage temperature: < 40 °C The stated storage temperature should be noted.
Packaging	aluminum, Stainless steel, High density polyethylene (HDPE), light-impervious
Incompatible materials	Oxidizing agents, strong bases and acids.
Requirements for storage rooms and vessels	Provide general ventilation. Protect from atmospheric humidity. Protect contents from the effects of light.
Need for use of stabilizers or antioxidants	No
7.3 Specific end use(s)	
None.	

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters					
Occupational exposure limits					
Limit value type (country of origin)	Substance name	CAS-No.	Monitoring procedures	Occupational exposure limit value	
				Long term mg/m ³	Short term mg/m ³



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 7 of 16
-------------------------	---------------------	------------------------------	---------------------

EU (OEL)	2-aminoethanol	141-43-5	Area Air Sampling	2,5	7,6
EU (OEL)	1,2-Ethanediol	107-21-1	-	LTEL TWA =52	STEL =104
Germany (DFG)	2,2'-oxydiethanol	111-46-6	-	LTEL TWA=44	STEL =176
DNEL/DMEL values:					
Substance name	Worker	Consumer	Exposure route	Exposure frequency	Remark
2-aminoethanol	DNEL = 1 mg/m ³	DNEL = 0.18 mg/m ³	inhalation	Long term	-
	DNEL = 3 mg/kg bw/day	DNEL = 1.5 mg/kg bw/day	dermal	Long term	-
	-	DNEL = 1.5 mg/kg bw/day	oral	Long term	-
1,2-Ethanediol	DNEL=35 mg/m ³	7 mg/m ³	inhalation	Long-term	-
	106 mg/kg bw/day	53 mg/kg bw/day	dermal	Long-term	-
	No hazard identified	No hazard identified	Eye	-	local effects
2,2'-oxydiethanol	43 mg/kg bw/day	21 mg/kg bw/day	dermal	Long term	Systemic effect
	44 mg/m ³	12 mg/m ³	inhalation	Long-term	systemic effects
	60 mg/m ³	12 mg/m ³	inhalation	Long-term	local effects
PNEC values:					
Substance name	Environmental compartment	Value		Assessment factor	Remark
2-aminoethanol	aqua (freshwater)	PNEC = 0.07 mg/L		10	-
	aqua (marine water)	PNEC = 0.007 mg/L		100	-
	sediment (freshwater)	PNEC = 0.357 mg/kg sediment dw		-	-
	sediment (marine water)	PNEC = 0.036 mg/kg sediment dw		-	-
1,2-Ethanediol	aqua (freshwater)	PNEC 10 mg/L		-	



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 8 of 16
-------------------------	---------------------	------------------------------	---------------------

	PNEC aqua (marine water)	PNEC 1 mg/L	-
	PNEC aqua (intermittent, freshwater)	PNEC 10 mg/L	-
2,2'-oxydiethanol	freshwater	PNEC 10 mg/L	-
	aqua (marine water)	PNEC 1 mg/L	-
	Sediment (freshwater) dw	PNEC = 20.9 mg/kg	-

8.2 Exposure controls

Occupational exposure controls

8.2.1. Appropriate engineering controls

Appropriate general ventilation should be sufficient.

8.2.2. Individual protection measures, such as personal protective equipment

Respiratory protection	Not needed during foreseen use. If fumes or mists are formed due to accident use respirator. Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapors of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)
Eye/face protection	If potential exists for splashing or mist formation, use tightly fitting safety goggles (e.g. EN 166)
Skin/body protection	Wear working protective gloves (EN 374). Wear regular work clothing.

8.2.3. Environmental exposure controls

Measures to prevent exposure	Emissions from wastewaters from work processes should be checked to ensure they comply with the requirements of environmental protection legislation.
-------------------------------------	---

9. PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties

Physical state	Oily liquid
Colour	Light yellow
Odour	Almost odorless



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 9 of 16
------------------	--------------	-----------------------	--------------

Melting point/freezing point (°C)	- 35
Initial boiling point/range (°C)	230 244 (2,2'-oxydiethanol) , 197°C (1,2-ethandiol)
Flammability	nonflammable (GHS classification criteria for flammable liquids: no category (nonflammable) Flash point >93 °C)
Lower and upper explosion limit	Non explosive <u>2,2'-oxydiethanol</u> : Lower explosion limit: 1.7% by volume 75 g/m ³ Upper explosion limit:37% by volume 1635 g/m ³ <u>1,2- ethandiol</u> : Lower explosion limit: 3.2% by volume 80 g/m ³ Upper explosion limit: 43 - 51%(by vol. 1090 ... 1326 g/m ³ Lower explosion point: 109°C
Flash point (°C)	120°C 138 °C (2,2-oxydiethanol) 111°C (1,2- ethandiol) 91°C – closed cup (2-aminoethanol)
Auto-ignition temperature (°C)	No data available for mixture 372 °C (2,2-oxydiethanol) 410°C (1,2-(Ethandiol) 424 (2-aminoethanol)
Decomposition temperature (°C)	No data available for mixture.
pH	pH value 7,0 -11,5
Kinematic viscosity (cSt = mm²/c) at minus (30±1) °C	< 1800
Solubility	Miscible with water.
Partition coefficient n-Octanol/Water (log Po/w)	Does not apply to mixtures.
Vapour pressure (kPa)	No data available for mixture. 0.008hPa(2,2-oxydiethanol) 0.123 hPa at 25 °C(1,2- ethandiol)
Density and/or relative density	1,06
Relative vapour density	No data available for mixture
Particle characteristics	Not applicable
9.2 Other information	
9.2.1. Information with regard to physical hazard classes	None



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 10 of 16
------------------	--------------	-----------------------	---------------

9.2.2. Other safety characteristics	None
--	------

10. STABILITY AND REACTIVITY

10.1 Reactivity	The substance can react dangerously with strong oxidizing agents
10.2 Chemical stability	The product is stable upon appropriate handling and storage conditions.
10.3 Possibility of hazardous reactions	oxidation in flame or excessive heat. Risk of explosion in contact with: perchloric acid
10.4 Conditions to avoid	Avoid heat, open flames, incompatible materials.
10.5 Incompatible materials	Oxidizing agents, bases and acids.
10.6 Hazardous decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide and carbon dioxide and minor amounts of nitrous oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects.					
Toxicokinetics, metabolism and distribution					
<p>The main intake route for mixture at the workplace is via the respiratory tract. Due to the very low vapor pressure of the liquid under normal conditions, exposure to vapors is to be expected mainly on heating.</p> <p>The kidneys are considered to be a critical target organ of mixture components, even after repeated exposure. Cases of poisoning in humans show that easily acutely toxic doses can be absorbed in this way.</p>					
Acute toxicity		The mixture is classified as Acute toxicity, Category 4, oral; respectively classified substances are present in it. Data on substances is presented below.			
Substance name	Exposure route	Value	Exposure time period	Species	Method (as is, equivalent or similar)
2,2-oxydiethanol	oral	LD50 = 19600 mg/kg bw	-	rat	-
	dermal	LD50 = 13300 mg/kg bw	-	Rabbits	-
1,2-ethandiol	oral	LD50 = 4700mg/kg	-	rat	-



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 11 of 16
-------------------------	---------------------	------------------------------	----------------------

	dermal	LD50 = 10600 mg/kg	-	Rabbits	-
2-aminoethanol	oral	LD50 = 1089 mg/kg	single dose	rat	OECD Guideline 401
	inhalation	LC50 = 1300 mg/m ³	6 hours	rat	national standard method with acceptable restrictions
	dermal	LD50 = 2504 mg/kg	24 hours	rabbit	OECD Guideline 402
Skin corrosion/irritation		The mixture is not classified as skin corrosive or irritating. Data on substances presented below.			
Substance name	Relevance	Result	Species	Method (as is, equivalent or similar)	
2,2-oxydiethanol	No	After a single dermal application of 50 mg DEG/kg body weight to the skin about 10% of the dose was absorbed within 72 hours. In the case of impact on injured skin, higher exposures must be expected.	rats	-	
2-aminoethanol	Yes	Erythema score 3 not reversible Classified as Skin corr. 1B	rabbit	OECD Guideline 404	
Serious eye damage/irritation		The mixture is not classified as Serious eye damage/irritation as it contains the lowest concentration of the classified substance. Data on substance presented below			
Substance name	Relevance	Result	Species	Method (as is, equivalent or similar)	
2-aminoethanol	Yes	Irreversible effects on the eye Classified as Eye. Dam. 1.	Rabbit	OECD Guideline 405	
Respiratory or skin sensitization	The mixture is not classified as sensitizing as no respectively classified substances are present in it.				
Germ cell mutagenicity	The mixture is not classified as no respectively classified substances are present in it.				
Carcinogenicity	The mixture is not classified as carcinogen as no respectively classified substances are present in it. 2,2'-oxydiethanol NOAEL (carcinog.), oral, rat=1160 mg/kg bw/day				
Reproductive toxicity	The mixture is not classified as possessing reproductive toxicity as no respectively classified substances are present in it.				



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 12 of 16
-------------------------	---------------------	------------------------------	----------------------

Data on substances presented below.				
Substance name	Relevance	Result	Species	Method (as is, equivalent or similar)
2-aminoethanol	Yes	NOAEL = 1 000 mg/kg bw/day	rat	OECD Guideline 415
2,2'-oxydiethanol		NOAEL (effects on fertility), subacute, 3060mg/kg bw/day	oral, mouse	-
specific target organ toxicity — single exposure	The mixture is not classified for specific target organ toxicity — single exposure as no respectively classified substances are present in it.			
STOT-repeated exposure	The mixture is classified as STOT-repeated exposure, Category 2, oral (Affected organs: kidney Route of exposure: Oral;) respectively classified substances are present in it. Data on substances is presented below.			
Substance name	Exposure route	Result	Species	Method (as is, equivalent or similar)
2,2-oxydiethanol	oral	NOAEL = 300 mg/kg bw/day(98 days)	rats	System: urinary. Organ: kidney
2-aminoethanol	oral	NOAEL = 300 mg/kg bw/day 75 days	rat	
1,2-ethandiol	oral	NOAEL =150 mg/kg bw/day The kidneys were found to be the target organ at higher doses	rat	equivalent or similar to OECD Guideline 452
Aspiration hazard	The mixture is not classified for aspiration toxicity as no respectively classified substances are present in it.			
Adverse health effects and symptoms associated with exposure				
In case of inhalation	due to high concentrations of vapors/aerosol, slight irritation in the upper respiratory tract or bothersome effect; in extreme cases breathing difficulties and absorptive effects			
In case of eye contact	no or little irritation			
In case of skin contact	no significant irritation; systemic effects must be expected if there is extensive contact with damaged skin.			
In case of ingestion	hardly any irritation, dose-dependent absorptive effects.			



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 13 of 16
------------------	--------------	-----------------------	---------------

11.2 Information on other hazards

Endocrine disrupting properties	Any of the ingredient of mixture has not been identified as having endocrine disrupting properties.
--	---

12. ECOLOGICAL INFORMATION

12.1 Toxicity:

Due to all available data on environmental fate and aquatic toxicology the substance does not need to be classified according to EU GHS CLP. Data on substances presented below.

Chemical name	Aquatic toxicity	Effect dose	Exposure time	Species	Method
diethylene glycol	Short-term toxicity to fish	LC50=75200 mg/L	96h	Fathead minnow (Pimephales promelas)	a flow-through study
	Long-term toxicity to fish	(ChV)7694 mg/L	30d	fish	QSAR EpiWin-Program ECOSAR v1.11
ethyleneglycol	Short-term toxicity to fish	LC50>72860 mg/L	96 h	Pimephales promelas	EPA 600/4-90/027
	Short-term toxicity to fish	LC50 =41000 mg/l	48 h	Crustaceans	-
2-aminoethanol	Acute toxicity to fish	LC50 = 280 mg/L	96 hours	Cyprinus carpio	Directive 92/69/EEC, C.1.
	Long-term toxicity to fish	NOEC = 1.24 mg/L	41 days	Oryzias latipes	OECD Guideline 210
	Acute toxicity to aquatic invertebrates	EC50 = 27.04 mg/L	48 hours	Daphnia magna	OECD Guideline 202
	Long-term toxicity to aquatic invertebrates	NOEC = 0.85 mg/L	21 day	Daphnia magna	OECD Guideline 202
	Toxicity to aquatic algae and cyanobacteria	NOEC = 1 mg/L	72 hours	Pseudokirchneriella subcapitata	OECD Guideline 201
	Toxicity to microorganisms	EC10 > 1 000 mg/L	30 min.	activated sludge	OECD Guideline 209

12.2 Persistence and degradability

Abiotic Degradation

No data available for mixture.

Biodegradation

Readily biodegradable (according to OECD criteria).



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 14 of 16
------------------	--------------	-----------------------	---------------

1,2-ethandiol: After 10 days > 90 % degradation was determined. (OECD 301A) 2,2-oxydiethanol: meet the criteria in a carbon dioxide evolution test according to OECD 301B. % Degradation of test substance: 90 – 100% after 28d
12.3 Bioaccumulative potential
No data available for mixture .
12.4 Mobility in soil
Study scientifically unjustified (substance is readily biodegradable)
12.5 Results of PBT and vPvB assessment
The substances in mixture do not meet the criteria for PBT or vPvB.
12.6 Other adverse effects:
None

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods	
Appropriate disposal / Product	Waste disposal should be in strict correspondence with local and national laws and regulations. Waste of the product is not regarded as hazardous according to Directive 2008/98/EC.
Waste codes according to EWC	none
Appropriate disposal /Packaging	Contaminated stainless steel empty containers should be properly cleaned and reused. Contaminated PE containers should be disposed as product or municipal waste.

14. TRANSPORT INFORMATION

The product is transported by railway (RID) and road (ADR) and waterways (ADN) Not subject to transport regulations.	
14.1 UN number	None
14.2 UN proper shipping name	None
14.3 Transport hazard class(es)	None
14.4. Packing group	None
14.5. Environmental hazards	Not considered as marine pollutant according to IMDG Code.
14.6. Special precautions for user	None
14.7 Maritime transport in bulk according to IMO instruments	This product is not transported in bulk and is out of the scope of Annex II of MARPOL 73/78.

15. REGULATORY INFORMATION



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid
DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 15 of 16
-------------------------	---------------------	------------------------------	----------------------

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

None

15.2 Chemical Safety Assessment

Chemical safety assessment has not been carried for the mixture.

16. OTHER INFORMATION

Revision

SDS has been issued for the first time.

Abbreviations

OEL – occupational exposure limit
VLEP – valeurs limites d'exposition professionnelle- occupational exposure limit values
VLE - valeurs limites d'exposition- occupational exposure limit values
MAK - maximum workplace concentrations
MAC - maximum workplace concentrations
WEL- Workplace Exposure Limits
AK - Permissible average concentration
DNEL - derived no-effect level
PNEC - predicted no effect concentration
LD50 – lethal dose
EC50 – half maximal effective concentration
EC10 - half maximal effective concentration
NOEL - no observed effect level
NOEC - no observed effect concentration
NOAEL – no observed adverse effect level
PBT or vPvB - persistent, bioaccumulative and toxic or very persistent very bioaccumulative
STOT SE – Specific target organ toxicity – single exposure
STOT RE - Specific target organ toxicity – repeated exposure
AF – Assessment factor

Sources for data

Suppliers' SDS for 1.2-ethandiol
Suppliers' SDS for 2.2'-oxydiethanol
ECHA database on registered substances
GESTIS database on international limit values
Specification TU U 20.5-37439067-006:2019

Classification method

For the purpose of classification of mixture available data on all substances and additivity principle was used. For the purpose of not classification of mixture for flammable liquids class results of flash point tests for mixture components was used.

List of hazard statements and/or precautionary statements

H302: Harmful if swallowed.



Safety Data Sheet
According to the Regulation (EC) №1907/2006
Brake fluid

DOT -4

Date: 03.11.2022	Version: 2.0	Supersedes version: -	Page 16 of 16
-------------------------	---------------------	------------------------------	----------------------

<p>H373: May cause damage to organs through prolonged or repeated exposure P260: Do not breathe dust/fume/gas/mist/vapors/spray. P264 Wash with plenty of water and soap thoroughly after handling. P270 Do not eat, drink or smoke when using this product P301+P312+P330: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. rinse mouth. P314: Get medical advice/attention if you feel unwell. P501 Dispose of contents/ container in accordance with local regulations All H- P-statements are mentioned in full in Section 2 of the SDS.</p>
<p>Advice on training</p> <p>Read carefully the SDS before using the product. Train personnel in the safe use of this product.</p>
<p>The information contained in this SDS is based on current knowledge and experience and describes the product only with regard to the safety of the product. The product must not be used for purposes other than those specified in section 1. The consumer is solely responsible for compliance with all applicable local laws and regulations. This information is not a guarantee of product quality. This information may be subject to revision as new knowledge and experience becomes available. Present SDS must be replaced with a new one if any changes will be made in the composition of the product.</p>



Изготовитель ООО "Черкасский завод автохимии", Украина, г. Черкассы,
ул. В.Чорновола 118, тел. +38 (0472) 64-24-04, 64-04-90

ПАСПОРТ КАЧЕСТВА № 16-1855/1

Жидкость охлаждающая низкотемпературная
Тосол А-30

ТУ У 24.6-14215951-001:2010 с изменениями 1-6

№	Название показателя	Норма	Факт	Метод испытания
1	Внешний вид	Однородная прозрачная жидкость без механических примесей. Цвет соответствует образцу-эталоноу	Соответствует	ГОСТ 28084-89, п.4.1
2	Плотность при температуре 20 °С, г/см ³ , не меньше	1,055	1,056	ГОСТ 18995.1-73, розділ 1
3	Температура начала кристаллизации, °С, не выше	-28	-29	ГОСТ 28084-89, п.4.3
4	Фракционный состав:			ГОСТ 28084-89, п.4.4
	Температура начала перегонки, °С, не ниже	100	108,0	
	Фракционный состав массовая доля жидкости, перегоняемая до температуры °С, не больше	60	54,3	
5	Коррозионное воздействие на металлы г/м2 сут., не больше *			ГОСТ 28084-89, п.4.5
	<input type="checkbox"/> алюминий	0.1	0,04	
	<input type="checkbox"/> чугун	0.1	0,08	
	<input type="checkbox"/> сталь	0.1	0,03	
	<input type="checkbox"/> медь	0.1	0,04	
	<input type="checkbox"/> латунь	0.1	0,05	
	<input type="checkbox"/> припой	0.2	0,15	
6	Вспениваемость:			ГОСТ 28084-89, п.4.6
	<input type="checkbox"/> Объем пены, см3 не больше	30	15	
	<input type="checkbox"/> Стойкость пены, с, не больше	3	1,8	
7	Набухание резины, %, не больше	5	1,3	ГОСТ 28084-89, п.4.7
8	Водородный показатель(рН), при 20 °С	7,5-11,0	8,8	ГОСТ 28084-89, п.4.8
9	Щелочность, см3 раствора КОН, не меньше	не нормируется	17	ГОСТ 28084-89, п.4.9
10	Температура застывания, °С, не выше	-30	-31	ТУ У 24.6-14215951-001:2010, п.6.13

*Согласно протокола периодических испытаний № 16-006 от 01.03.2016

Гарантийный срок хранения – 5 лет

Вывод: соответствует требованиям ТУ У 24.6-14215951-001:2010 с изменениями 1-6

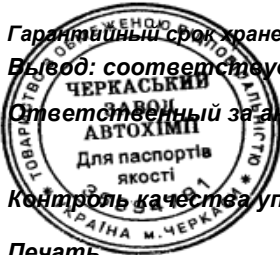
Ответственный за анализ Суржикова Н. Л.

Подпись

Контроль качества упаковки

Подпись

Печать





Изготовитель ООО "Черкасский завод автохимии", Украина, г. Черкассы,
ул. В.Чорновола 118, тел. +38 (0472) 64-24-04, 64-04-90

ПАСПОРТ КАЧЕСТВА № 16-1855/12

Жидкость охлаждающая низкотемпературная

Тосол А-30 (М)

ТУ У 24.6-14215951-001:2010 с изменениями 1-6

№	Название показателя	Норма	Факт	Метод испытания
1	Внешний вид	Однородная прозрачная жидкость без механических примесей. Цвет соответствует образцу-эталоноу	Соответствует	ГОСТ 28084-89, п.4.1
2	Плотность при температуре 20 °С, г/см ³ , не меньше	1,055	1,056	ГОСТ 18995.1-73, розділ 1
3	Температура начала кристаллизации, °С, не выше	-28	-29	ГОСТ 28084-89, п.4.3
4	Фракционный состав:			ГОСТ 28084-89, п.4.4
	Температура начала перегонки, °С, не ниже	100	108,0	
	Фракционный состав массовая доля жидкости, перегоняемая до температуры °С, не больше	60	54,3	
5	Коррозионное воздействие на металлы г/м2 сут., не больше *			ГОСТ 28084-89, п.4.5
	<input type="checkbox"/> алюминий	0.1	0,04	
	<input type="checkbox"/> чугун	0.1	0,08	
	<input type="checkbox"/> сталь	0.1	0,03	
	<input type="checkbox"/> медь	0.1	0,04	
	<input type="checkbox"/> латунь	0.1	0,05	
	<input type="checkbox"/> припой	0.2	0,15	
6	Вспениваемость:			ГОСТ 28084-89, п.4.6
	<input type="checkbox"/> Объем пены, см3 не больше	30	15	
	<input type="checkbox"/> Стойкость пены, с, не больше	3	1,8	
7	Набухание резины, %, не больше	5	1,3	ГОСТ 28084-89, п.4.7
8	Водородный показатель(рН), при 20 °С	7,5-11,0	8,8	ГОСТ 28084-89, п.4.8
9	Щелочность, см3 раствора КОН, не меньше	не нормируется	17	ГОСТ 28084-89, п.4.9
10	Температура застывания, °С, не выше	-30	-31	ТУ У 24.6-14215951-001:2010, п.6.13

*Согласно протокола периодических испытаний № 16-006 от 01.03.2016

Гарантийный срок хранения – 5 лет

Вывод: соответствует требованиям ТУ У 24.6-14215951-001:2010 с изменениями 1-6

Ответственный за анализ Суржикова Н. Л.

Подпись

Контроль качества упаковки

Подпись

Печать





Изготовитель ООО "Черкасский завод автохимии", Украина, г. Черкассы,
ул. В.Чорновола 118, тел. +38 (0472) 64-24-04, 64-04-90

ПАСПОРТ КАЧЕСТВА № 16-1854/2

**Жидкость охлаждающая
низкозамерзающая марки А-30
Антифриз Сt12+
ТУ У 24.6-14215951-001:2010 с изменениями 1-6**

№	Название показателя	Норма	Факт	Метод испытания
1	Внешний вид	Однородная прозрачная жидкость без механических примесей. Цвет соответствует образцу-эталоноу	Соответствует	ГОСТ 28084-89, п.4.1
2	Плотность при температуре 20 °С, г/см ³ , не меньше	1,055	1,056	ГОСТ 18995.1-73, раздел 1
3	Температура начала кристаллизации, °С, не выше	-28	-29	ГОСТ 28084-89, п.4.3
4	Фракционный состав:			ГОСТ 28084-89, п.4.4
	Точка кипения, °С, не ниже	108	108,0	
	Фракционный состав массовая доля жидкости, перегоняемая до температуры °С, не больше	60	52,0	
5	Коррозионное воздействие на металлы г/м2 сут., не больше *			ГОСТ 28084-89, п.4.5
	<input type="checkbox"/> алюминий	0.1	0,08	
	<input type="checkbox"/> чугун	0.1	0,07	
	<input type="checkbox"/> сталь	0.1	0,06	
	<input type="checkbox"/> медь	0.1	0,05	
	<input type="checkbox"/> латунь	0.1	0,06	
	<input type="checkbox"/> припой	0.2	0,12	
6	Вспениваемость:			ГОСТ 28084-89, п.4.6
	<input type="checkbox"/> Объем пены, см3 не больше	30	15,00	
	<input type="checkbox"/> Стойкость пены, с, не больше	3	1,80	
7	Набухание резины, %, не больше	5	0,9	ГОСТ 28084-89, п.4.7
8	Водородный показатель(pH), при 20 °С	7,5-11,0	8,6	ГОСТ 28084-89, п.4.8
9	Щелочность, см3 раствора КОН, не меньше	не нормируется	20,0	ГОСТ 28084-89, п.4.9
10	Температура застывания, °С, не выше	-30	-31	ТУ У 24.6-14215951-001:2010, п.6.13

*Согласно протокола периодических испытаний № 23-68 от 02.11.2023

Гарантийный срок хранения – 5 лет

Выход соответствует требованиям ТУ У 24.6-14215951-001:2010 с изменениями 1-6

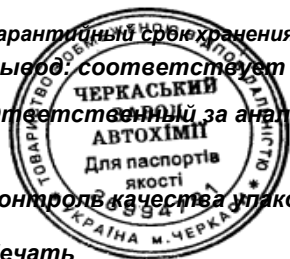
Ответственный за анализ Суржикова Н. Л.

Подпись

Контроль качества упаковки Бабенкова Т.Т.

Подпись

Печать





Изготовитель ООО "Черкасский завод автохимии", Украина, г. Черкассы, ул. В.Чорновола 118, тел. +38 (0472) 64-24-04, 64-04-90

ПАСПОРТ КАЧЕСТВА № 16-1856/1

Жидкость охлаждающая
низкозамерзающая марки А-30

Антифриз Сt11

ТУ У 24.6-14215951-001:2010 с изменениями 1-6

№	Название показателя	Норма	Факт	Метод испытания
1	Внешний вид	Однородная прозрачная жидкость без механических примесей. Цвет соответствует образцу-эталоны	Соответствует	ГОСТ 28084-89, п.4.1
2	Плотность при температуре 20 °С, г/см ³ , не меньше	1,055	1,057	ГОСТ 18995.1-73, розділ 1
3	Температура начала кристаллизации, °С, не выше	-28	-29	ГОСТ 28084-89, п.4.3
4	Фракционный состав:			ГОСТ 28084-89, п.4.4
	Температура начала перегонки, °С, не ниже	100	100,0	
	Фракционный состав массовая доля жидкости, перегоняемая до температуры °С, не больше	60	54,3	
5	Коррозионное воздействие на металлы г/м ² сут., не больше *			ГОСТ 28084-89, п.4.5
	<input type="checkbox"/> алюминий	0.1	0,04	
	<input type="checkbox"/> чугун	0.1	0,08	
	<input type="checkbox"/> сталь	0.1	0,03	
	<input type="checkbox"/> медь	0.1	0,04	
	<input type="checkbox"/> латунь	0.1	0,05	
	<input type="checkbox"/> припой	0.2	0,15	
6	Вспениваемость:			ГОСТ 28084-89, п.4.6
	<input type="checkbox"/> Объем пены, см ³ не больше	30	15	
	<input type="checkbox"/> Стойкость пены, с, не больше	3	1,80	
7	Набухание резины, %, не больше	5	1,3	ГОСТ 28084-89, п.4.7
8	Водородный показатель(рН), при 20 °С	7,5-11,0	8,6	ГОСТ 28084-89, п.4.8
9	Щелочность, см ³ раствора КОН, не меньше	не нормируется	21,3	ГОСТ 28084-89, п.4.9
10	Температура застывания, °С, не выше	-30	-31	ТУ У 24.6-14215951-001:2010, п.6.13

*Согласно протокола периодических испытаний № 16-006 от 01.03.2016

Гарантийный срок хранения – 5 лет

Вывод: соответствует требованиям ТУ У 24.6-14215951-001:2010 с изменениями 1-6

Ответственный за анализ Суржикова Н. Л.

Подпись

Контроль качества упаковки

Подпись



Печать



ПАСПОРТ / PASSPORT № 357

Рідина / Liquid
«Стеол-М» / "Steol-M"
ГОСТ 5020-75 / GOST 5020-75Партія / Party № 3
Резервуар / Tank № 1,2 T
Маса / Net mass 550 кг / kg
Дата виготовлення / Date of manufacture
20.09. 2024 p./y.

Physical and chemical parameters

№№	Найменування показника / Properties	Норма / Norma	Фактично / Fact	Метод випро-бування / Test method
1.	Зовнішній вигляд	Прозора рідина без осаду від жовтого до зеленого кольору	Відповідає Corresponds	ГОСТ 5472
	Appearance	Clear liquid with no sediment from yellow to green		GOST 5472
2.	Густина при 20°C, г/см ³ , у межах	1,084 - 1,108	1.090	ДСТУ 7261
	Density at 20°C, g/cm ³	1.084 - 1.108		DSTU 7261
3.	Масова частка гліцерину, %, у межах	44,9 - 47,7	47.0	ГОСТ 5020, п.3.6
	Glycerine content, % mass	44.9 - 47.7		GOST 5020, p.3.6
4.	Масова частка етилового спирту, %, у межах	18,7 - 19,7	19.1	ГОСТ 5020, п.3.7
	Ethanol content, % mass	18.7 - 19.7		GOST 5020, p.3.7
5.	Масова частка золи, %, не більше	1,9	1.73	ГОСТ 5020, п.3.8
	Ash content, % mass	Max 1.9		GOST 5020, p.3.8
6.	Масова частка хрому у перерахунку на K ₂ CrO ₄ , %, у межах	1,5 - 1,7	1.68	ГОСТ 5020, п.3.9
	Chromium content based on K ₂ CrO ₄ , % mass	1.5 - 1.7		GOST 5020, p.3.9
7.	Масова частка луку у перерахунку на NaOH, %, у межах	0,08 - 0,13	0.10	ГОСТ 5020, п.3.10
	Alkali content based on NaOH, % mass	0.08 - 0.13		GOST 5020, p.3.10
8.	Масова частка хлору, %, не більше	0,002	0.001	ГОСТ 10671.7 (метод) і п.3.11 ГОСТ 5020
	Chlorine content, % mass	Max 0.002		GOST 10671.7 (method) and GOST 5020, p.3.11
9.	Масова частка заліза, %, не більше	0,01	0.008	ГОСТ 5020, п.3.12
	Iron content, % mass	Max 0.01		GOST 5020, p.3.12
10.	Масова частка диетиламіну фосфорнокислого, %, у межах	0,15 - 0,30	0.25	ГОСТ 5020, п.3.13
	Diethylamine phosphate, % mass	0.15 - 0.30		GOST 5020, p.3.13

Висновок: рідина «Стеол-М» відповідає ГОСТ 5020-75.

Conclusion: Fluid "Steol-M" corresponds to GOST 5020-75.

Гарантійний термін зберігання оливи - 5 років від дня виготовлення за умови її зберігання згідно з ДСТУ 4454.

The warranty period of oil storage is 5 years from the date of manufacture, provided it is stored in accordance with DSTU 4454.



Інженер ЦЗЛ / Engineer CPL _____

Ст. лаборант / Senior laboratory _____

Дата видачі паспорту / Date of issue 04.11. 2024 p./y.

MINISTERUL SĂNĂTĂȚII AL REPUBLICII MOLDOVA
МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ
РЕСПУБЛИКИ МОЛДОВА
AGENȚIA NAȚIONALĂ PENTRU SĂNĂTATE PUBLICĂ
НАЦИОНАЛЬНОЕ АГЕНТСТВО ОБЩЕСТВЕННОГО
ЗДОРОВЬЯ

MD-2028, mun. Chișinău, str. Gheorghe. Asachi, 67 a
Tel. + 373 22 574501, fax + 373 22 729725
IDNO 1018601000021
e-mail: office@ansp.gov.md



DOCUMENTAȚIE MEDICALĂ / Медицинская документация
FORMULAR / Форма Nr. 303-2 e
APROBAT DE MS al RM / Утверждена МЗ РМ Nr. 828
от 31.10.11
Centrul de încercări de laborator acreditat de către Centrul
Național de Acreditare din Republica Moldova MOLDAC
Испытательный лабораторный центр аккредитованный
Национальным Аккредитационным Центром РМ MOLDAC
Certificat nr. LI-044 din 17.02.2018 valabil până la 16.02.2022

AVIZ SANITAR
PENTRU PRODUSELE ALIMENTARE ȘI NEALIMENTARE Nr. P-13272/2022
Санитарное заключение для пищевых и непищевых продуктов
din/от 04 martie 2022

Prin prezentul aviz sanitar se confirmă că producerea, importul, utilizarea și desfacerea produselor / echipamentelor
Настоящим санитарным заключением подтверждается что производство, ввоз, использование и реализация продукции / оборудования
"AD-BLUE" – soluție apoasă de uree SCR-Euro 6

sunt conforme Regulamentului (lor) sanitar (e) / соответствуют санитарному (ым) регламенту (ам) (se va indica denumirea completă a
Regulamentului (lor) sanitar (e) / указать полное наименование санитарного (ых) регламента (ов))

SF 41279445-001:2021, Indicațiilor metodice nr.341 din 15.04.2014"Metode de determinare și evaluare a unor
indici toxicologici și clinici a siguranței și inofensivității unor categorii de produse cu impact potențial asupra sănătății"

Organizația-productoare/importatoare, țara de origine / организация произв./импортёр, страна происхождения

"AMID-AUTO" SRL, Republica Moldova

Destinatarul avizului sanitar / получатель санитарного заключения

AMID-AUTO S.R.L. , Republica Moldova, mun. Chișinău, sec. Botanica, str. Independenței, 42, ap./of. 20, 2072

Temei pentru recunoașterea conformității produselor Regulamentului (lor) sanitar (e) menționat (e) a servit /

Основанием для признания продукции указанному (ым) санитарному (ым) регламенту (ам) послужило

Demers, autorizație sanitară de funcționare nr.P-0616/2019 din 23.03.2019, standard de firmă, raport de încercări nr.171 din
23.09.2021, raport a încercărilor de laborator nr.732 din 03.03.2022

(a enumera documentele de însoțire, buletinele de analiză / перечислить сопроводительные док., протоколы исслед.)

Caracteristica sanitară a produselor / санитарная характеристика продукции:

Parametrii (factorii) / показатели (факторы)

Normativul sanitar / санитарный норматив

conform raportului încercărilor de laborator nr.732 din 03.03.2022

Domeniu de utilizare / Область применения:

îngrijire auto – adeziv pentru motoarele diesel SCR

Condițiile necesare de utilizare, depozitare, transportare, măsurile de securitate / Необходимые условия использования, хранения,
транспортировки, меры безопасности:

producerea, plasarea pe piață în condițiile respectării legislației în vigoare în Republica Moldova

AVIZUL SANITAR este valabil pînă la / Санитарное заключение действительно до: 31.03.2025

DIRECTORUL AGENȚIEI NAȚIONALE PENTRU SĂNĂTATE PUBLICĂ

Nicolae Jelamschi

Digitally signed by Nicolae Jelamschi
Date: 2022.03.04 13:37:45 EET
Reason: MoldSign Signature
(www.mold.gov.md)



(semnătura / подпись)



L.Ș.

ANSP/HAO3

SP 10-XVI-09

000617

O3

AVIZ SANITAR
PENTRU PRODUSELE ALIMENTARE ȘI NEALIMENTARE Nr. P-17027/2023
Санитарное заключение для пищевых и непищевых продуктов
din/от 14 aprilie 2023

Prin prezentul aviz sanitar se confirmă că producerea, importul, utilizarea și desfacerea produselor / echipamentelor
Настоящим санитарным заключением подтверждается что производство, ввоз, использование и реализация продукции / оборудования
Soluție de spălat parbriz "IARNA" -20 C, -30 C; Soluție de spălat parbriz "VARA", lichid pentru aprinderea focului

sunt conforme Regulamentului (lor) sanitar (e) / соответствуют санитарному (ым) регламенту (ам) (se va indica denumirea completă a
Regulamentului (lor) sanitar (e) / указать полное наименование санитарного (ых) регламента (ов))
SF 41279445-001:2020, IT MD 41279445-001:2020, SM GOST R 51696:2003 Produse chimice de uz casnic

Organizația-producătoare/importatoare, țara de origine / организация произв./импортер, страна происхождения

"AMID-AUTO" SRL, Republica Moldova

Destinatarul avizului sanitar / получатель санитарного заключения

AMID-AUTO S.R.L. , Republica Moldova, mun. Chișinău, sec. Botanica, str. Independenței, 42, ap./of. 20

Temei pentru recunoașterea conformității produselor Regulamentului (lor) sanitar (e) menționat (e) a servit /

Основанием для признания продукции указанному (ым) санитарному (ым) регламенту (ам) послужило

Demers, autorizație sanitară de funcționare, standard de firmă, instrucțiune tehnologică, rețeta, raport de încercări nr.69 din 17.05.2022, rapoarte a încercărilor de laborator nr.51007043-51007046 din 06.04.2023, din 11.04.2023
(a enumera documentele de însoțire, buletinele de analiză / перечислить сопроводительные док., протоколы исслед.)

Caracteristica sanitară a produselor / санитарная характеристика продукции:

Parametrii (factorii) / показатели (факторы)

Normativul sanitar / санитарный норматив

conform rapoartelor încercărilor de laborator nr.51007043-51007046 din 06.04.2023, din 11.04.2023

Domeniu de utilizare / Область применения:

întreținere auto

Condițiile necesare de utilizare, depozitare, transportare, măsurile de securitate / Необходимые условия использования, хранения, транспортировки, меры безопасности:

producerea, plasarea pe piață în condițiile respectării legislației în vigoare în Republica Moldova

AVIZUL SANITAR este valabil pînă la / Санитарное заключение действительно до: 30.04.2026

DIRECTORUL AGENȚIEI NAȚIONALE PENTRU SĂNĂTATE PUBLICĂ

Digitally signed by Jelamschi Nicolae
Date: 2023.04.14 11:46:18 EEST
Reason: MoldSign Signature
Location: Moldova

Nicolae Jelamschi



ТОВ «СП ЮКОЙЛ». Завод технічних олиव.
Україна, 09100, Київська обл., Білоцерківський р-н, місто Біла Церква, вул.Пулюя Івана, будинок 48-А
Телефон приймальні: +38 (0612) 65 46 81
Телефон ВТК: +38 (061) 222 80 25
ЄДРПОУ 31852954



Випробувальна лабораторія ТОВ «СП ЮКОЙЛ» атестована на проведення вимірювань показників якості нафтопродуктів, технічних рідин та мастильних матеріалів. Свідоцтво про визнання технічної компетентності № АВ 43-22 від 22.11.2022р. видане ДП «ЗАПОРІЖЖЯСТАНДАРТМЕТРОЛОГІЯ», чинне до 16.11.2024 р

Паспорт якості фасованої продукції №17199.01.01.1

Мастило YUKO Літол-24

ТУ У 20.5-31852954-122:2023

Виробник: ТОВ «СП ЮКОЙЛ»
Розфасовано: ТОВ «СП ЮКОЙЛ» за ТУ У 23.2-31852954-027:2006
Клас NLGI **NLGI 3**
Клас експлуатаційних властивостей: **K3K-40, ISO-L-XDCEA3**

Дата виготовлення: Квітень 2024р.
Тара: відро 5л ПЕ
Номер партії: 17199.26.04.24.01.

Ф.5 СТП014

Назва показника	Вимоги НД	Фактично	Метод випробувань
Зовнішній вигляд	Однорідна мазь гладкої структури від світло-жовтого до темно-коричневого кольору	Однорідна мазь гладкої структури жовтого кольору	ГСТУ 38.001 або п. 7.3 цих ТУ
Температура крапання, °С, не нижче	140	148	ГОСТ 6793 або ASTM D2265
Пенетрація при 25°С з перемішуванням, 0,1 мм	230-290	250	ГОСТ 5346, метод Б або ASTM D217
В'язкість ефективна при мінус 20°С та середньому градієнті швидкості деформації 10 с-1, Па·с, не більше	1 500	680	ГОСТ 7163 або ASTM D1092
Колоїдна стабільність: масова частка оливи, відпресованої від мастила, %, не більше	15,0	5,60	ГОСТ 7142
Межа міцності на зсув при 50°С, Па, не менше	150	266	ГОСТ 7143 метод Б
Випарність, %, не більше	5,0	0,48	ГОСТ 9566 з доп. за п. 7.4 цих ТУ
Корозійний вплив на пластині зі сталі	Витримує	Витримує	ГОСТ 9.080
Трибологічні характеристики на чотирикульовій машині при температурі (20 ± 5) °С:			ГОСТ 9490 або ASTM D2596
- навантаження зварювання (Рзв), Н, не менше	1 381	1 381	

Паспорт якості дійсний тільки за наявності печатки.

Висновок: якість продукції відповідає вимогам ТУ У 20.5-31852954-122:2023 і ТУ У 23.2-31852954-027:2006

Гарантійний термін зберігання - 5 років
М. П.

Начальник ВТК

Анна ЛАРЧЕНКО

