

Stepan



Environmentally Friendly Agricultural Solvents Typical Properties



Stepan Trade Name	Base Material	Chemical Description	CAS #	Appearance @ 25°C	Viscosity @ 25°C, cps	Color		Density @ 25 °C, U.S. lbs/gal	Specific Gravity
						APHA	Gardner		
STEPAN® C-25	Coconut oil	Methyl caprylate/caprates	68937-83-7	Clear liquid	2	11	1	7.3	0.870
STEPAN® C-42	Coconut oil	Methyl laurate/Methyl myristate	111-82-0, 124-10-7	Clear liquid	7	9	1	7.3	0.870
STEPAN® C-65	Coconut oil	Methyl palmitate/oleate	67762-38-3	Clear liquid	7	28	1	7.2	0.860
STEPAN® 108	Vegetable oil	Caprylic/capric triglyceride	73398-61-5	Clear liquid	23	192	2	7.9	0.945
HALLCOMID™ M-8-10	Coconut oil	N,N-Dimethylcaprylamide, N,N-Dimethylcapramide	1118-92-9, 14433-76-2	Clear liquid	11	8	1	7.3	0.881
HALLCOMID™ M-10	Coconut oil	N,N-Dimethylcapramide	14433-76-2	Clear liquid	9	37	1	7.3	0.878
HALLCOMID™ M-12-14	Coconut oil	N,N-Dimethylauricamide, N,N-Dimethylmyristicamide	3007-53-2, 3015-65-4	Clear liquid	8	5	0.1	7.3	0.874
HALLCOMID™ 1025	Vegetable oil	N,N-Dimethyl 9-decenamide	1356965-776	Clear liquid	4	20	1	7.4	0.892
STEPOSOL® ROE-W	Canola oil	Canola methyl ester	67762-38-3	Clear liquid	10	239	2	7.3	0.876
STEPOSOL® ME	Soybean oil	Soya methyl ester	67784-80-9	Clear liquid	7	320	1	7.3	0.877
STEPOSOL® EA	Synthetic	Esteramide	15567-96-1	Clear liquid	10	504	5	8.9	1.070

STEPOSOL® and STEPAN® are registered trademarks of Stepan Company.
HALLCOMID™ is a trademark of Stepan Company.

Disclaimer:
Nothing contained herein grants or extends a license, expressed or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the work of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. THE MANUFACTURER SHALL NOT BE LIABLE (REGARDLESS OF FAULT) TO THE VENDEE, ITS EMPLOYEES, OR ANY OTHER PERSON OR ENTITY FOR ANY DAMAGES, INCLUDING DIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, ARISING OUT OF OR IN CONNECTION WITH THE ACCURACY, COMPLETENESS, ADEQUACY OR FURNISHING OF SUCH INFORMATION. 02.25.2015
© 2015 Stepan Company. All rights reserved.



Stepan



Environmentally Friendly Agricultural Solvents Typical Properties



Stepan Trade Name	Flash Point (PMCC)		Boiling Point @ 760mm Hg		Cloud Point		Pour Point		Melting Point		Freeze Point	
	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
STEPAN® C-25	78	173	200	392	-35.4	-31.7	-37.0	-34.6	-42.1	-43.7	-49.3	-56.7
STEPAN® C-42	>94	>201	274	525	-3.8	25.2	-4.0	24.8	-5.0	23.0	-9.4	15.0
STEPAN® C-65	>94	>201	305	581	15.6	60.1	14.3	57.7	14.0	57.2	10.0	50.0
STEPAN® 108	>94	>201	246	474	19.5	67.1	18.0	64.4	-6.4	20.5	-18.0	-0.4
HALLCOMID™ M-8-10	118	245	260	500	<-20.0	<-4.0	-19.6	-3.3	-17.0	1.4	-34.0	-29.2
HALLCOMID™ M-10	120	248	278	532	<-14.0	<6.8	-14.0	6.8	-2.5	27.5	-17.0	1.4
HALLCOMID™ M-12-14	160	320	352	665	9.5	49.0	11.0	51.8	8.1	46.6	4.6	40.3
HALLCOMID™ 1025	134	273	297	566	-13	8.6	-14.0	6.8	-9.5	12.5	-16.0	3.2
STEPOSOL® ROE-W	>94	>201	361	682	-2.3	27.9	-13.8	7.2	-10.9	12.5	-24.5	-12.1
STEPOSOL® ME	>94	>201	352	665	-1.1	30.0	-1.6	29.1	0.1	32.1	-5.7	21.7
STEPOSOL® EA	141	285.8	298	570	<-82.8	<116.5	-60.7	-77.3	N.D	N.D	<-65.0	<-85.0

STEPOSOL® and STEPAN® are registered trademarks of Stepan Company.
 HALLCOMID™ is a trademark of Stepan Company.
 N.D. = Not Determined

Disclaimer:

Nothing contained herein grants or extends a license, expressed or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the work of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. THE MANUFACTURER SHALL NOT BE LIABLE (REGARDLESS OF FAULT) TO THE VENDEE, ITS EMPLOYEES, OR ANY OTHER PERSON OR ENTITY FOR ANY DAMAGES, INCLUDING DIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, ARISING OUT OF OR IN CONNECTION WITH THE ACCURACY, COMPLETENESS, ADEQUACY OR FURNISHING OF SUCH INFORMATION. 02.25.2015
 © 2015 Stepan Company. All rights reserved.





Environmentally Friendly Agricultural Solvents

Typical Properties



Stepan Trade Name	Hansen Solubility			Surface Tension (neat), dynes/cm	Solubility			
	δd	δp	δh		Water	Methanol	Kerosene	Xylene
STEPAN® C-25	16.40	2.80	4.50	27.7	Insoluble	Soluble	Soluble	Soluble
STEPAN® C-42	15.40	3.20	3.20	29.4	Insoluble	Soluble	Soluble	Soluble
STEPAN® C-65	14.90	2.70	4.00	30.8	Insoluble	Soluble	Soluble	Soluble
STEPAN® 108	18.22	5.39	14.74	30.0	Insoluble	Soluble	Soluble	Soluble
HALLCOMID™ M-8-10	17.24	5.80	6.67	30.9	Partially soluble	Soluble	Soluble	Soluble
HALLCOMID™ M-10	17.26	4.95	6.16	31.1	Partially soluble	Soluble	Soluble	Soluble
HALLCOMID™ M-12-14	17.29	4.06	5.58	26.0	Partially soluble	Soluble	Soluble	Soluble
HALLCOMID™ 1025	16.58	9.58	8.45	31.5	Partially soluble	Soluble	Soluble	Soluble
STEPOSOL® ROE-W	14.84	2.68	4.52	31.4	Insoluble	Soluble	Soluble	Soluble
STEPOSOL® ME	14.49	2.71	5.16	31.5	Insoluble	Soluble	Soluble	Soluble
STEPOSOL® EA	16.60	9.40	9.60	28.5	Soluble	Soluble	Insoluble	Soluble

STEPOSOL® and STEPAN® are registered trademarks of Stepan Company.
HALLCOMID™ is a trademark of Stepan Company.

Disclaimer:

Nothing contained herein grants or extends a license, expressed or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the work of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. THE MANUFACTURER SHALL NOT BE LIABLE (REGARDLESS OF FAULT) TO THE VENDEE, ITS EMPLOYEES, OR ANY OTHER PERSON OR ENTITY FOR ANY DAMAGES, INCLUDING DIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, ARISING OUT OF OR IN CONNECTION WITH THE ACCURACY, COMPLETENESS, ADEQUACY OR FURNISHING OF SUCH INFORMATION. 02.25.2015

© 2015 Stepan Company. All rights reserved.





Environmentally Friendly Agricultural Solvents

Typical Properties



Stepan Trade Name	Kauri-Butanol Value	VOC% ¹ (CARB attachment B)	HAP ²	BCI ³	Biodegradability	EPA Clearance Inert Ingredient 49 CFR 180.XXX
STEPAN® C-25	112	100.00	N	90	Readily Biodegradable	910
STEPAN® C-42	112	27.34	N	93	Readily Biodegradable	910
STEPAN® C-65	68	0.70	N	94	Readily Biodegradable	910
STEPAN® 108	50	0.38	N	100	Readily Biodegradable	910
HALLCOMID™ M-8-10	>300	20.37	N	82	Readily Biodegradable	920
HALLCOMID™ M-10	>300	6.59	N	83	Readily Biodegradable	920
HALLCOMID™ M-12-14	>220	2.41	N	86	Readily Biodegradable	Inert petition filed 2015
HALLCOMID™ 1025	>1000	99.60	N	83	Readily Biodegradable	Inert petition filed 2014
STEPOSOL® ROE-W	55	0.80	N	95	Readily Biodegradable	910
STEPOSOL® ME	38	0.70	N	95	Readily Biodegradable	910
STEPOSOL® EA	>106	99.50	N	57	N.D.	* Experimental product

¹VOC% (CARB attachment B) refers to California Air Resources Board Method attachment B for VOC determination http://www.cdpr.ca.gov/docs/emon/voc/vocproj/tga_method.pdf

²HAP: Hazardous Air Pollutant as listed by the U.S. EPA under the 1990 Clean Air Act.

³BCI: The BCI stands for Biorenewable Carbon Index. It is the number of naturally derived carbons (plant, animal or marine based) divided by the total number of carbons, multiplied by 100.

STEPOSOL® and STEPAN® are registered trademarks of Stepan Company.

HALLCOMID™ is a trademark of Stepan Company.

N.D. = Not Determined

Disclaimer:

Nothing contained herein grants or extends a license, expressed or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the work of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. THE MANUFACTURER SHALL NOT BE LIABLE (REGARDLESS OF FAULT) TO THE VENDEE, ITS EMPLOYEES, OR ANY OTHER PERSON OR ENTITY FOR ANY DAMAGES, INCLUDING DIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, ARISING OUT OF OR IN CONNECTION WITH THE ACCURACY, COMPLETENESS, ADEQUACY OR FURNISHING OF SUCH INFORMATION. 02.25.2015

© 2015 Stepan Company. All rights reserved.

