

Let's find out.





SM-102 is a lipid that you can order online for laboratory use. It is referred to as an 'ionizable amino lipid'.

SM-102

	QH.		
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An ionizable amino lipid Item No. 33474 CAS No. 2089251-47-6 Purity: ≥98%

• Lipid H

BULK & CUSTOM	
25 mg \$194 <u>Ready to ship</u>	- 0 +
50 mg \$349 <u>Ready to ship</u>	- 0 +
100 mg \$581 <u>Ready to ship</u>	- 0 +
250 mg \$1,065 <u>Ready to ship</u>	- 0 +

https://www.caymanchem.com/product/33474/sm-102

The first thing that any good 'chemist' does when ordering a new 'chemical' is to check out the (Material) Safety Data Sheet ((M)SDS) safety sheet. $\frac{1}{2}$ See the MSDS for SM-102. I will list 3 pages here as per Cayman's SM-102 product listed online.

Cayman		Page 1/11	Safety Data acc. to OSHA Printing date 01/19/2022 Trade name: SM-192	Page 2/11 Sheet HCS Revision date 09/15/2021		
	Safety Data Sheet acc. to OSHA HCS	rage of t	Eye Irrit. 2A H319 Causes serious eye irritation.	(Contd. from page 1)	Safety Data Sheet acc. to OSHA HCS	Page 5/11
Printing date 01/19/2022 I Identification	10/19/2022 Revision date 09/15/2021 fication		Label elements OHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). Hazard pictograms		Printing date 01/19/2022 Trade name: SM-102	Revision date 09/15/2021
Product identifier Trade name: SM-IO2 Anticle manues: 3474 Application of the substance / the mixture Anticle manues: 3474 Application of the substance / the mixture Application of the substance / the substance / the mixture Carpano Chemical Co. Tarnon Anton, MI 43108 USA Information department: Fronzeles (Upplication) 4971-3335 USC/NADA, 500-424-6300 Outside USC/NADA, 500-474-6370		With a state of the state		Clothed parameters		
2 Hazard (6) Identification Classification of the substance or mixture OHS02 Flame Finu. Lig. 2 H225 Highly flammable liquid and vapor.						

https://jessicar.substack.com/p/what-is-sm-102

GHS06 Skull and crossbones Acute Tox: 3 H301 Toxic if evallowed. Acute Tox: 3 H331 Toxic if Irnated. Image: Carr: 1A H350 May cause cancer. Image: Carr: 1A H350 May cause cancer. Image: Carr: 1A H350 May cause cancer. Image: Carr: 1A H350 May cause cancer.	P304-P301 ft or specific results and the water for several minutes. Hennove contact lenses, if present and asys to do Contina metality, and the contact lenses, if the several metality of do Contina metality, and the contact lenses, if page ratios presents and asys contact lenses, and the contact lenses, if the several metality, and the contact lenses, if page ratios presents and asys contact lenses, and the contact lenses, if page ratios presents and asys contact lenses, if page ratios presents and the contact lenses and the contact le	degradation that deform the suitable gives does not only depend on the material, but also on further marks of quality and varies from amplicature to manifestorer. As the product is a preparation of several substances, the presistance of the given material can not be calculated in advance and has therefore to the exact backs through time has to be found out by the manufacturer of the protective givens and has to be cheared. The exact backs through time has to be found out by the manufacturer of the protective givens and has to be cheared. By protection: Topics the substance of the given back through the time of the protective givens and has the because the substance of the given back through the time of the protective givens and has the because the substance of the given back through the time of the protective givens and has the because the substance of the given back through the time of the protective givens and has the because the substance of the given back through the time of the protective given back through the time back through the time of the protective given back through the time of the protective given back through the time back through the time of the protective given back through the time of the time of the protective given back through the time of the tim
(Contd. on page 2)	(Contd. on page 3)	(Contd. on page 6)

https://cdn.caymanchem.com/cdn/msds/33474m.pdf

The symbols listed above are quite self-explanatory but I will explain them anyway. This lipid is listed as having the following hazards: flammable in liquid and vapor form, acute toxicity if swallowed or inhaled, hazardous to health, and mutagenic (causes cancer). It is listed as being 90% ethanol and 10% SM-102 and known to cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects and teratogenic effects as per the First-Aid Measures and treatment from potential exposure.

Below is the <u>Occupational Safety and Health Administration</u> (OSHA quick card for quick and easy recognition of the meanings of the pictograms.



Standard Pictogram

The Hazard Communication Standard (HCS) requires pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

HCS Pictograms and Hazards Exclamation Mark Health Hazard ! Carcinogen Mutagenicity Reproductive Toxicity Respiratory Sensitizer Hammables Irritant (skin and e Skin Sensitizer Pyrophorics Self-Heating Emits Flammable Gr Skin Sensitizer Acute Toxicity (has Narcotic Effects Target Organ Toxicity Aspiration Toxicity Respiratory Tract Self-Reactives Organic Peroxides Irritant is to Ozon Laver (Non-Mand Gas Cylinder Corrosion Exploding Bomb 12 £. ses Under Pr Skin Corrosion • Explosives • Self-Reactive: Eye Dama Organic Peroxides Corrosive to M Flame Over Circle Skull and Crossb Environment <u>¥_</u> Ø tic Toxic Acute Toxicity (fatal or toxic) For more information



The little pictogram with the blue red and yellow set of diamonds at the bottom of the second page means that this product can cause temporary incapacitation or residual injury and will burn (flashpoint greater than room temperature) and is stable. Below are the analogous pictograms for gasoline and diesel. SM-102 is more dangerous from a health (blue) point of view than both gas and diesel.



The third page reinforces what page 2 primarily shows which are the protective conditions/measures one must apply or use when handling SM-102 $\frac{3}{2}$. I always made sure I followed these recommendations to the letter.

Now everyone should know that this 'story' has been '<u>fact-checked</u>' by 'FactCheck.org' and their claim is that, quote:

Cayman Chemical offers a <u>version of SM-102</u> for research purposes that is packaged in <u>chloroform</u>, a potentially toxic chemical. So the <u>safety data sheet</u> from Cayman Chemical for that product includes warnings related to chloroform — not SM-102.

FACTCHECK POSTS > SCICHECK

Vaccine Ingredient SM-102 Is Safe

By Saranac Hale Spencer

Posted on May 26, 2021

I don't even know what they are trying to say here. It seems they are claiming that since the product is packaged in chloroform, which is toxic, that the SDS sheet pictograms refer to chloroform and not the listed product itself. There is no mention of chloroform packaging from what I read. And as far as I know, this is not how it works. There is an SDS for chloroform, and there is an SDS for SM-102. They are separate and different. The product, as far as I can ascertain, has nothing to do with chloroform. It is suspended in ethanol.



I *know* how to read MSDS sheets. It's a vital part of doing safe work in the laboratory environment. It's the very first thing I do. I have actually been made fun of for being 'too cautious' for being very stringent about reading and abiding by SDS sheets, but

when I see a skull and crossbones, I take it to mean that I should try not to *be* the skull and crossbones. Furthermore, if one does get hurt or damaged from not handling a product properly, asses are covered.

Without bias, I checked out the MSDS for SM-102 as I would for any chemical or new product I might be interested for using in assays or lab work. And I found the above.

Now, digging deeper into this, or rather staying in the mindset of purchasing this product and using it in the lab context, I clicked on the link to the 'Kit, Mixture & Library Option(s)' tab, and it took me to the neat little 'build-your-own-LNP' kit (Lipid Nanoparticle (LNP-102) Exploration Kit) of which SM-102 comprises the cationic lipid $\frac{4}{5}$ $\frac{6}{9}$ in this kit. (Just to remind everyone, the cationic lipid for the P-fizer p-f-roducts is ALC-0315.) The analogous cationic lipid in the Mod(e)rna LNPs is this SM-102.





Notice in the SDS for the LNP-102 kit materials that the Application of the substance / the mixture reads, quote:

This product is for research use - *Not for human or veterinary diagnostic or therapeutic*.

Now then. Are you sitting down?

Go to the UK government website listed <u>here</u>. Here's a screenshot that made me do a double-take. The screenshot below refers to the Summary of Product Characteristics for 'Spikevax' (Mod(e)rna), updated 14 April 2022.

2. Qualitative and quantitative composition

This is a multidose vial that contains 10 doses of 0.5 mL each or a maximum of 20 doses of 0.25mL each.

One dose (0.5 mL) contains 100 micrograms of elasomeran, a COVID-19 mRNA Vaccine (embedded in SM-102 lipid nanoparticles).

One dose (0.25 mL) contains 50 micrograms of of elasomeran, a COVID-19 mRNA Vaccine (embedded in SM-102 lipid nanoparticles).

Elasomeran is a single-stranded, 5'-capped messenger RNA (mRNA) produced using a cell-free in vitro transcription from the corresponding DNA templates, encoding the viral spike (S) protein of SARS-CoV-2.

For the full list of excipients, see section 6.1.

https://www.gov.uk/government/publications/regulatory-approval-ofcovid-19-vaccine-moderna/information-for-healthcare-professionals-oncovid-19-vaccine-moderna

[With regard to genotoxicity and carcinogenicity studies], *in vitro* and *in vivo* genotoxicity studies were conducted with the novel lipid component SM-102 of the 'vaccine'. Results suggests the genotoxicity potential to humans is **very low**. **Carcinogenicity studies were not performed**.

Oh. So it's very low. In *in vitro* and *in vivo* models. And how many animals were tested? Ok. Hmm. And no carcinogenicity studies. They aren't *meant to* cause cancer. Right.

To summarize the Mod(e)rna injectable products utilize the LNPs from the LNP-102

10 summarize, the mod(c/ma mjectable products utilize the live s nom the live 102

kit which in turn utilizes the cationic lipids SM-102 that are highly toxic according to the MSDS. It also means that a lab-grade LNP product is being used in humans.

Unless there is a new version of the SM-102 that is non-lab-grade on the go, then Houston, we have a problem.

And by the way, there's this paper entitled: "The mRNA-LNP platform's lipid nanoparticle component used in preclinical vaccine studies is highly inflammatory".⁷

For more information on this please check out Naomi Wolf's <u>interview</u> with the Edward Dowd and this <u>Substack write-up</u> as well. Lots of good stuff being exposed by many!

- <u>1</u> https://support.nlm.nih.gov/knowledgebase/article/KA-03976/en-us
- 2 https://file.medchemexpress.com/batch_PDF/HY-134541/SM-102-SDS-MedChemExpress.pdf
- 3 https://cdn.caymanchem.com/cdn/insert/33474.pdf
- <u>4</u> Schoenmaker, Linde et al. "mRNA-lipid nanoparticle COVID-19 vaccines: Structure and stability." *International journal of pharmaceutics* vol. 601 (2021): 120586. doi:10.1016/j.ijpharm.2021.120586.
- 5 Evers, Martijn J.W., Kulkarni, Jayesh A., van der Meel, Roy, Cullis, Pieter R., Vader, Pieter, Schiffelers, Raymond M., 2018. State-of-the-art design and rapidmixing production techniques of lipid nanoparticles for nucleic acid delivery. Small Methods 2 (9), 1700375. https://doi.org/10.1002/smtd.v2.910.1002/ smtd.201700375.
- 6 It contains positively charged ionizable amine groups that interact with the anionic mRNA during particle formation and also facilitate membrane fusion during internalization.
- 7 Ndeupen, S., Qin, Z., Jacobsen, S., Bouteau, A., Estanbouli, H., & Igyártó, B. Z. (2021). The mRNA-LNP platform's lipid nanoparticle component used in preclinical vaccine studies is highly inflammatory. *iScience*, 24(12), 103479. https://doi.org/10.1016/j.isci.2021.103479.