
Safety Assessment of Glyceryl Acrylates as Used in Cosmetics

Status: Draft Report for Panel Review
Release Date: August 20, 2021
Panel Meeting Date: September 13-14, 2021

The Expert Panel for Cosmetic Ingredient Safety members are: Chair, Wilma F. Bergfeld, M.D., F.A.C.P.; Donald V. Belsito, M.D.; David E. Cohen, M.D.; Curtis D. Klaassen, Ph.D.; Daniel C. Liebler, Ph.D.; Lisa, A. Peterson, Ph.D.; Ronald C. Shank, Ph.D.; Thomas J. Slaga, Ph.D.; and Paul W. Snyder, D.V.M., Ph.D. The Cosmetic Ingredient Review (CIR) Executive Director is Bart Heldreth, Ph.D. This report was prepared by Wilbur Johnson, Jr., M.S., Senior Scientific Analyst/Writer, CIR.

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Memorandum

To: Expert Panel for Cosmetic Ingredient Safety Members and Liaisons

From: Wilbur Johnson, Jr.
Senior Scientific Analyst/Writer, CIR

Date: August 20, 2021

Subject: Safety Assessment of Glyceryl Acrylates as Used in Cosmetics

Enclosed is the Draft Report of the Safety Assessment of Glyceryl Acrylates as Used in Cosmetics (*glycer092021rep*). It should be noted that a Scientific Literature Review (SLR) Notice to Proceed (NTP) was announced on March 5, 2021. This announcement was made because an intensive search of the published information for the 3 ingredients named in this report resulted in insufficient information to justify preparation of a formal SLR. Use concentration data (*glycer092021data*, received prior to the NTP announcement) were obtained from the Council. These data are enclosed and summarized in the draft report, along with the limited safety test data that have been identified in the published literature. No other data were submitted by industry.

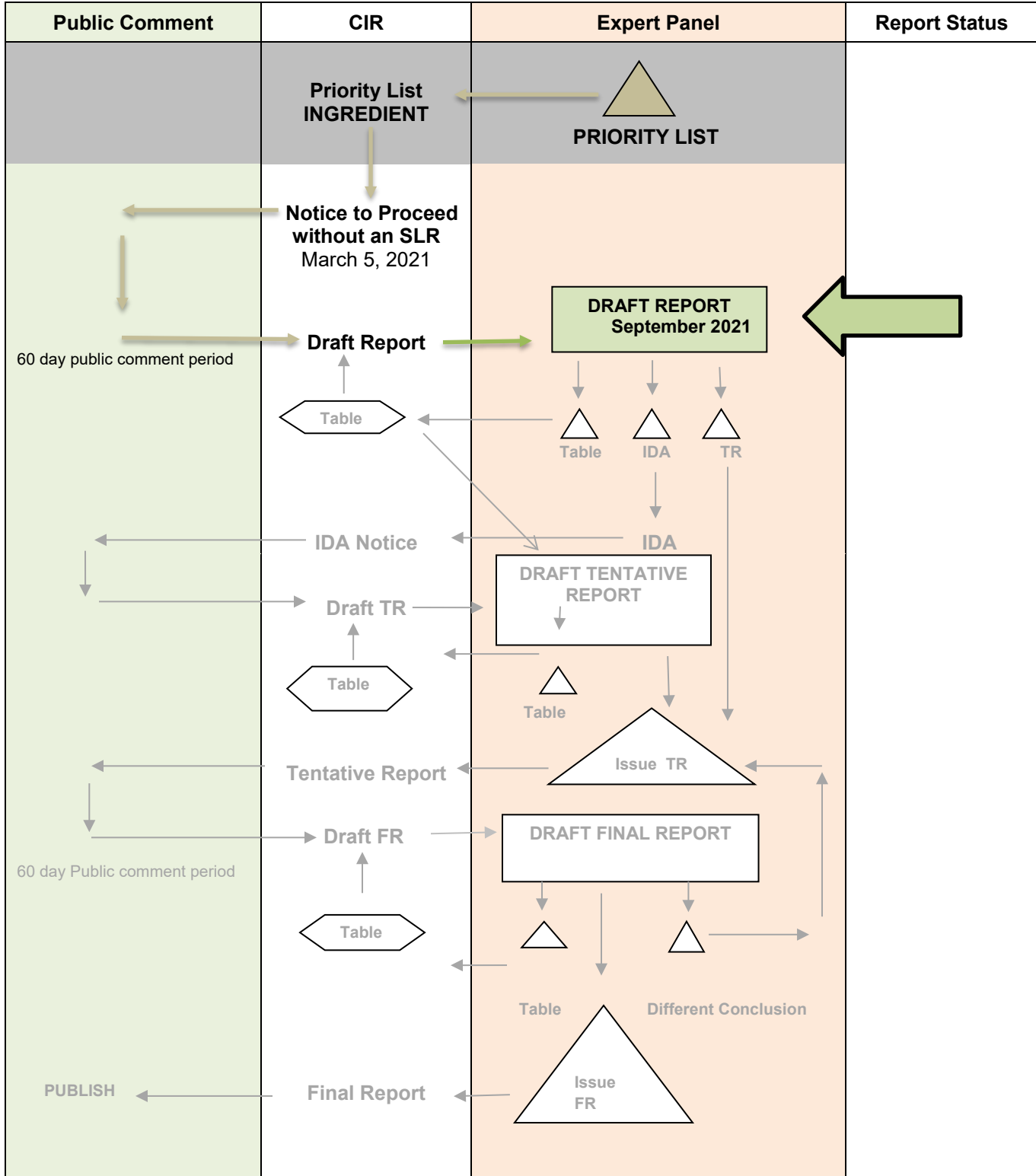
Also included in this package for your review are the report history (*glycer092021hist*), flow chart (*glycer092021flow*), literature search strategy (*glycer092021strat*), ingredient data profile (*glycer092021prof*), and 2021 FDA VCRP data (*glycer092021FDA*).

After reviewing these documents, if the available data are deemed sufficient to make a determination of safety, the Panel should issue a Tentative Report with a safe as used, safe with qualifications, or unsafe conclusion, and Discussion items should be identified. If the available data are insufficient, the Panel should issue an Insufficient Data Announcement (IDA), specifying the data needs therein.

SAFETY ASSESSMENT FLOW CHART

INGREDIENT/FAMILY Glyceryl Acrylates

MEETING September 2021



CIR History of:

Glyceryl Acrylates

A Scientific Literature Review (SLR) Notice to Proceed (NTP) on Polyquaternium-6 was issued on March 5, 2021.

Draft Report, Teams/Panel: September 13-14, 2021

The draft report also contains 2021 use concentration data that were received from the Council.

Glyceryl Acrylates Data Profile* -September 13-14, 2021 - Wilbur Johnson, Jr.

						Toxico-kinetics		Acute Tox			Repeated Dose Tox			DART		Genotox		Carci		Dermal Irritation			Dermal Sensitization			Ocular Irritation		Clinical Studies		
	Reported Use	GRAS	Method of Mfg	Constituents	Impurities	Dermal Penetration	ADME	Dermal	Oral	Inhalation	Dermal	Oral	Inhalation	Dermal	Oral	In Vitro	In Vivo	Dermal	Oral	In Vitro	Animal	Human	In Vitro	Animal	Human	Phototoxicity	In Vitro	Animal	Retrospective/Multicenter	Case Reports
Glyceryl Acrylate/Acrylic Acid Copolymer	286																													
Glyceryl Polymethacrylate	121			X																X										
Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer	0																													

* "X" indicates that data were available in a category for the ingredient

Glyceryl Acrylates – 10/26-27/2020;6/3/2021;7/20/2021

Ingredient	CAS #	InfoBase	SciFinder	PubMed	TOXNET	FDA	EU	ECHA	IUCLID	SIDS	HPVIS	NICNAS	NTIS	NTP	WHO	FAO	ECE-TOC	Web
Glyceryl Acrylate/Acrylic Acid Copolymer				0		No	0	0	0	0	0	0	0	0	0	0	0	Yes
Glyceryl Polymethacrylate	146126-21-8 28474-30-8			8		No	0	No**	0	0	0	0	0	0	0	0	0	Yes
Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer				0		0	0	0	0	0	0	0	0	0	0	0	0	Yes

**Preregistration process

Search Strategy

[document search strategy used for SciFinder, PubMed, and Toxnet]

[identify total # of hits /# hits that were useful or examined for usefulness]

LINKS

InfoBase (self-reminder that this info has been accessed; not a public website) - <http://www.personalcarecouncil.org/science-safety/line-infobase>
SciFinder (usually a combined search for all ingredients in report; list # of this/# useful) - <https://scifinder.cas.org/scifinder>
PubMed (usually a combined search for all ingredients in report; list # of this/# useful) - <http://www.ncbi.nlm.nih.gov/pubmed>
Toxnet databases (usually a combined search for all ingredients in report; list # of this/# useful) – <https://toxnet.nlm.nih.gov/> (includes Toxline; HSDB; ChemIDPlus; DAR; IRIS; CCRIS; CPDB; GENE-TOX)

FDA databases – <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm> (CFR); then, list of all databases: <http://www.fda.gov/ForIndustry/FDABasicsforIndustry/ucm234631.htm>; then, <https://www.fda.gov/food/food-additives-petitions/substances-added-food-formerly-eafus> (Substances added to Food); <http://www.fda.gov/food/ingredientpackaginglabeling/gras/default.htm> (GRAS); <https://www.fda.gov/food/generally-recognized-safe-gras/gras-substances-scogs-database> (SCOGS database); <http://www.accessdata.fda.gov/scripts/fdcc/?set=IndirectAdditives> (indirect food additives list); <http://www.fda.gov/Drugs/InformationOnDrugs/default.htm> (drug approvals and database); <http://www.fda.gov/downloads/AboutFDA/CentersOffices/CDER/UCM135688.pdf> (OTC ingredient list); <http://www.accessdata.fda.gov/scripts/cder/iig/> (inactive ingredients approved for drugs)

EU (European Union); check CosIng (cosmetic ingredient database) for restrictions and SCCS (Scientific Committee for Consumer Safety) opinions - <http://ec.europa.eu/growth/tools-databases/cosing/>
ECHA (European Chemicals Agency – REACH dossiers) – <http://echa.europa.eu/information-on-chemicals;jsessionid=A978100B4E4CC39C78C93A851EB3E3C7.live1>
IUCLID (International Uniform Chemical Information Database) - <https://iuclid6.echa.europa.eu/search>
OECD SIDS documents (Organisation for Economic Co-operation and Development Screening Info Data Sets)- <http://webnet.oecd.org/hpv/ui/Search.aspx>
HPVIS (EPA High-Production Volume Info Systems) - <https://ofmext.epa.gov/hpvis/HPVISlogon>
NICNAS (Australian National Industrial Chemical Notification and Assessment Scheme)- <https://www.nicnas.gov.au/>
NTIS (National Technical Information Service) - <http://www.ntis.gov/>
NTP (National Toxicology Program) - <http://ntp.niehs.nih.gov/>
WHO (World Health Organization) technical reports - http://www.who.int/biologicals/technical_report_series/en/
FAO (Food and Agriculture Organization of the United Nations) - <http://www.fao.org/food/food-safety-quality/scientific-advice/jecfa/jecfa-additives/en/> (FAO);
FEMA (Flavor & Extract Manufacturers Association) - http://www.femaflavor.org/search/apachesolr_search/
Web – perform general search; may find technical data sheets, published reports, etc
ECETOC (European Center for Ecotoxicology and Toxicology Database) - <http://www.ecetoc.org/>

Botanical Websites, if applicable

Dr. Duke's <https://phytochem.nal.usda.gov/phytochem/search>
Taxonomy database - <http://www.ncbi.nlm.nih.gov/taxonomy>
GRIN (U.S. National Plant Germplasm System) - <https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysimple.aspx>
Sigma Aldrich plant profiler <http://www.sigmaaldrich.com/life-science/nutrition-research/learning-center/plant-profiler.html>

Fragrance Websites, if applicable

IFRA (International Fragrance Association) – <http://www.ifraorg.org/>
RIFM (the Research Institute for Fragrance Materials) should be contacted

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ABBREVIATIONS

CIR	Cosmetic Ingredient Review
Council	Personal Care Products Council
FDA	Food and Drug Administration
Panel	Expert Panel for Cosmetic Ingredient Safety
VCRP	Voluntary Cosmetic Registration Program
wINCI	web-based <i>International Cosmetic Ingredient Dictionary and Handbook</i>
US	United States

INTRODUCTION

The safety of the following Glyceryl Acrylates as used in cosmetics is reviewed in this safety assessment:

Glyceryl Acrylate/Acrylic Acid Copolymer
Glyceryl Polymethacrylate
Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer

According to the web-based *International Cosmetic Ingredient Dictionary and Handbook* (wINCI; *Dictionary*), Glyceryl Acrylate/Acrylic Acid Copolymer is reported to function in cosmetics as a skin-conditioning agent – humectant and a viscosity increasing agent – aqueous (Table 1).¹ Glyceryl Polymethacrylate is reported to function as a film former, and Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer as a humectant and skin-conditioning agent – emollient.

The published data in this document were identified by conducting an exhaustive search of the world's literature. A list of the typical search engines and websites used, sources explored, and endpoints that the Expert Panel for Cosmetic Ingredient Safety (Panel) evaluates, is available on the Cosmetic Ingredient Review (CIR) website (<https://www.cir-safety.org/supplementaldoc/preliminary-search-engines-and-websites>; <https://www.cir-safety.org/supplementaldoc/cir-report-format-outline>). Unpublished data may be provided by the cosmetics industry, as well as by other interested parties. These searches yielded limited toxicity data relating to the 3 glyceryl acrylate ingredient names that are listed above.

It should be noted that, at the December 3-4, 2018 meeting, the Panel issued a final amended report on 126 acrylates copolymers (not glyceryl) with the following conclusion, "Acrylates copolymers are safe in cosmetics in the present practices of use and concentration described in the safety assessment when formulated to be non-irritating."²

CHEMISTRY

Definition and Structure

Two ingredients defined as copolymers, Glyceryl Acrylate/Acrylic Acid Copolymer and Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer, as well as Glyceryl Polymethacrylate, an ester of glycerin and polymethacrylic acid¹ (Figure 1), are reviewed in this safety assessment. These ingredients are each vinyl-type polymers, resulting from the esterification of acrylic acid or methacrylic acid with glycerin.

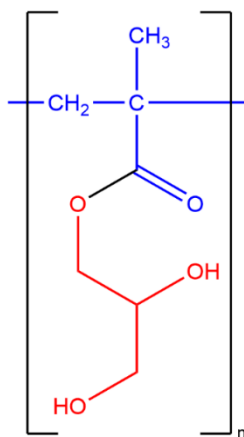


Figure 1. Glyceryl Polymethacrylate

The definitions, idealized structures, and CAS Nos. of the glyceryl acrylates included in this safety assessment are presented in Table 1.

Chemical Properties

Properties data on a Glyceryl Acrylate/Acrylic Acid Copolymer trade name mixture, but not on the ingredient alone, were found and are presented in Table 2. This mixture (which also contains glycerin, water, and propylene) is water-soluble and has a relative density of 1.15 g/ml.³ Properties data on Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer and Glyceryl Polymethacrylate were not found.

Method of Manufacture

Glyceryl Polymethacrylate

According to one source, the mixing of 4-aminocarbonylazo-2-pyrimidinone with mildly acidic solutions of 1-glyceryl methacrylate resulted in polymerization to Glyceryl Polymethacrylate.⁴

Impurities

Data on the impurities of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

USE

Cosmetic

The safety of glyceryl acrylates is evaluated based on data received from the US Food and Drug Administration (FDA) and the cosmetics industry on the expected use of these ingredients in cosmetics. Use frequencies of individual ingredients in cosmetics are collected from manufacturers and reported by cosmetic product category in FDA's Voluntary Cosmetic Registration Program (VCRP) database. Use concentration data are submitted by the cosmetics industry in response to surveys, conducted by the Personal Care Products Council (Council), of maximum reported use concentrations by product category.

According to 2021 FDA VCRP data, Glyceryl Acrylate/Acrylic Acid Copolymer is reported to be used in 286 cosmetic products (277 leave-on products and 9 rinse-off products).⁵ Of the 3 glyceryl acrylates reviewed in this safety assessment, this is the greatest reported use frequency. The results of a concentration of use survey conducted by the Council in 2020 and provided in 2021 indicate that Glyceryl Polymethacrylate is used at maximum use concentrations up to 1.9% in leave-on products (body and hand products).⁶ This is the highest maximum ingredient use concentration that is being reported in this safety assessment. Further use data are presented in Table 3.

Cosmetic products containing glyceryl acrylates may be applied to the skin, or, incidentally, may come in contact with the eyes (e.g., Glyceryl Acrylate/Acrylic Acid Copolymer at concentrations up to 0.62% in eye lotions). Glyceryl Acrylate/Acrylic Acid Copolymer and Glyceryl Polymethacrylate (concentrations not stated) are also used in products that come in contact with mucous membranes. Products containing glyceryl acrylates may be applied as frequently as several times per day, and may come in contact with the skin for variable periods following application. Daily or occasional use may extend over many years.

Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer is reported to be used in products that can be inhaled (perfumes) at a maximum concentration of 0.2%. In practice, 95% to 99% of the droplets/particles released from cosmetic sprays have aerodynamic equivalent diameters $> 10 \mu\text{m}$, with propellant sprays yielding a greater fraction of droplets/particles below $10 \mu\text{m}$, compared with pump sprays.⁷⁻¹⁰ Therefore, most droplets/particles incidentally inhaled from cosmetic sprays would be deposited in the nasopharyngeal and bronchial regions and would not be respirable (i.e., they would not enter the lungs) to any appreciable amount.^{7,8} Glyceryl Polymethacrylate is reported to be used in face powders (concentrations unavailable). Conservative estimates of inhalation exposures to respirable particles during the use of loose powder cosmetic products are 400-fold to 1000-fold less than protective regulatory and guidance limits for inert airborne respirable particles in the workplace.¹¹⁻¹³

The glyceryl acrylates reviewed in this safety assessment are not restricted from use in any way under the rules governing cosmetic products in the European Union.¹⁴

Non-Cosmetic

Glyceryl Polymethacrylate – collagen composite hydrogels have been developed for implantation in surgical lesions of the rat brain. Such materials provide porous matrices that can serve as support systems for growth of scar tissue and axonal growth.^{15,16} It has been noted that this technology has considerable potential for basic as well as for clinical research in central nervous system regeneration. Other reported uses of Glyceryl Polymethacrylate include autoclavable lubricant and moisturizer for medical and surgical use.¹⁷

TOXICOKINETIC STUDIES

Toxicokinetic data on the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

TOXICOLOGICAL STUDIES

Acute Toxicity Studies

Data on the acute toxicity of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

Short-Term Toxicity Studies

Data on the short-term toxicity of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

Subchronic Toxicity Studies

Data on the subchronic toxicity of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

Chronic Toxicity Studies

Data on the chronic toxicity of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

OTHER RELEVANT STUDIES

Effect on Burn-Wound Healing

Glyceryl Polymethacrylate

Eight domestic pigs were subjected to burn wounds in the paravertebral area.¹⁸ Some wounds were exposed to an experimental cream, and other wounds served as air-exposed controls. The cream consisted of Glyceryl Polymethacrylate in an oil-in-water emulsion with the following components: fibronectin (40 ppm), proline, arginine, and glycine. Beginning on day 0 (day of wounding), the wounds were treated once daily with the cream (~ 0.2 g/wound site) to completely cover the wound until healing was complete. The wounds treated with the cream developed a soft eschar, when compared to air-exposed control wounds. Erythema was not observed after application of the cream.

DEVELOPMENTAL AND REPRODUCTIVE TOXICITY STUDIES

Data on the developmental and reproductive toxicity of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

GENOTOXICITY STUDIES

Data on the genotoxicity of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

CARCINOGENICITY STUDIES

Data on the carcinogenicity of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

DERMAL IRRITATION AND SENSITIZATION STUDIES

Irritation

Data on the irritation potential of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

Sensitization

Data on the sensitization potential of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

OCULAR IRRITATION STUDIES

Data on the ocular irritation potential of the glyceryl acrylates reviewed in this safety assessment were neither found in the published literature, nor were these data submitted.

SUMMARY

The safety of 3 glyceryl acrylates as used in cosmetics is reviewed in this safety assessment. According to the *Dictionary*, Glyceryl Acrylate/Acrylic Acid Copolymer is reported to function as a skin-conditioning agent – humectant and a viscosity increasing agent – aqueous. Glyceryl Polymethacrylate is reported to function as a film former, and Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer as a humectant and skin-conditioning agent – emollient.

According to one source on the production of Glyceryl Polymethacrylate, the mixing of 4-aminocarbonylazo-2-pyrimidinone with mildly acidic solutions of 1-glyceryl methacrylate resulted in polymerization to this ingredient.

According to 2021 FDA VCRP data, Glyceryl Acrylate/Acrylic Acid Copolymer is reported to be used in 286 cosmetic products (277 leave-on products and 9 rinse-off products). Of the 3 glyceryl acrylates reviewed in this safety assessment, this is the greatest reported use frequency. The results of a concentration of use survey conducted by the Council in 2020 and provided in 2021 indicate that Glyceryl Polymethacrylate is used at maximum use concentrations up to 1.9% in leave-on

products (body and hand products). This is the highest maximum ingredient use concentration that is being reported in this safety assessment.

Eight domestic pigs were subjected to burn wounds in the paravertebral area. The wounds were exposed to an experimental cream that consisted of Glyceryl Polymethacrylate in an oil-in-water emulsion. Daily treatment with the cream (~ 0.2 g/wound site) was continued until wound healing was complete. Application of the cream resulted in a soft eschar, but erythema was not observed.

DISCUSSION

To be developed.

CONCLUSION

To be determined.

TABLES**Table 1.** Definitions, reported functions, and idealized structures of the ingredients in this safety assessment.^{1, CIR Staff}

Ingredient/CAS No.	Definition & Structures	Function(s)
Glyceryl Acrylate/Acrylic Acid Copolymer	<p data-bbox="448 243 1219 296">Glyceryl Acrylate/Acrylic Acid Copolymer is a copolymer of glyceryl acrylate and acrylic acid</p> <div data-bbox="625 296 1052 663" style="text-align: center;"> </div> <p data-bbox="448 667 1219 716"><i>Drawn as a simple block-type copolymer for demonstration; other monomer connectivity patterns possible.</i></p>	Skin-Conditioning Agents - Humectant; Viscosity Increasing Agents - Aqueous
Glyceryl Polymethacrylate 146126-21-8 28474-30-8	<p data-bbox="448 747 1092 768">Glyceryl Polymethacrylate is the ester of glycerin and polymethacrylic acid</p> <div data-bbox="743 768 943 1146" style="text-align: center;"> </div>	Film Formers
Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer	<p data-bbox="448 1157 1211 1209">Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer is a copolymer of caprylyl glycol, glycerin, and polyacrylic acid monomers</p> <div data-bbox="625 1209 1052 1629" style="text-align: center;"> </div> <p data-bbox="448 1633 1211 1682"><i>Drawn as a simple block-type copolymer for demonstration; other monomer connectivity patterns possible.</i></p>	Humectants; Skin-Conditioning Agents - Emollient

Table 2. Chemical properties

Property	Value/Results	Reference
Glyceryl Acrylate/Acrylic Acid Copolymer trade name mixture (also containing glycerin, water, and propylene glycol)		
Form	Clear, colorless viscous gel	3
Solubility	Water-soluble	3
Relative density (g/ml)	1.15	3
Viscosity (cps)	250,000 – 350,000	3
Melting point (°C)	< 0	3
Boiling point (°C)	> 100	3

Table 3. Frequency (2021) and concentration (2020) of use according to duration and type of exposure.^{5,6}

	# of Uses	Max Conc of Use (%)	# of Uses	Max Conc of Use (%)	# of Uses	Max Conc of Use (%)
	Caprylyl Glycol/Glycerin/ Polyacrylic Acid Copolymer		Glyceryl Acrylate/Acrylic Acid Copolymer		Glyceryl Polymethacrylate	
Totals*/Conc. Range	NR	0.2	286	0.00001-0.62	121	0.08-1.9
Duration of Use						
Leave-On	NR	0.2	277	0.00001-0.62	119	0.08-1.9
Rinse off	NR	NR	9	0.012-0.42	2	NR
Diluted for (bath) Use	NR	NR	NR	NR	NR	NR
Exposure Type						
Eye Area	NR	NR	25	0.035-0.62	11	NR
Incidental Ingestion	NR	NR	NR	NR	NR	NR
Incidental Inhalation- Sprays	NR	0.2	87 ^a ;134 ^c	0.053-0.62 ^a	43 ^a ;40 ^c	NR
Incidental Inhalation- Powders	NR	NR	1 ^b ;134 ^c	0.02-0.1 ^c	1;40 ^c	0.08-1.9 ^c
Dermal Contact	NR	0.2	281	0.00001-0.62	121	0.08-1.9
Deodorant (underarm)	NR	NR	NR	NR	NR	NR
Hair - Non-Coloring	NR	NR	1	NR	NR	NR
Hair-Coloring	NR	NR	NR	NR	NR	NR
Nail	NR	NR	4	NR	NR	NR
Mucous Membrane	NR	NR	1	NR	1	NR
Baby Products	NR	NR	1	NR	NR	NR

NR = Not Reported

* Because each ingredient may be used in cosmetics with multiple exposure types, the sum of all exposure types may not equal the sum of total uses.

^a It is possible that these products may be sprays, but it is not specified whether the reported uses are sprays^b Not specified these products are sprays or powders, but it is possible the use can be as a spray or powder, therefore the information is captured in both categories^c It is possible that these products may be powders, but it is not specified whether the reported uses are powders

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2021 VCRP Data**Glyceryl Acrylate/Acrylic Acid Copolymer**

Baby Lotions, Oils, Powders, and Creams	01B	1
Eyebrow Pencil	03A	1
Eye Lotion	03D	16
Eye Makeup Remover	03E	1
Other Eye Makeup Preparations	03G	7
Tonics, Dressings, and Other Hair Grooming Aids	05G	1
Foundations	07C	1
Makeup Bases	07F	1
Other Makeup Preparations	07I	4
Nail Polish and Enamel	08E	1
Other Manicuring Preparations	08G	3
Other Personal Cleanliness Products	10E	1
Aftershave Lotion	11A	4
Shaving Cream	11E	1
Other Shaving Preparation Products	11G	2
Cleansing	12A	2
Face and Neck (exc shave)	12C	121
Body and Hand (exc shave)	12D	13
Moisturizing	12F	80
Night	12G	3
Paste Masks (mud packs)	12H	2
Skin Fresheners	12I	1
Other Skin Care Preps	12J	17
Suntan Gels, Creams, and Liquids	13A	1
Other Suntan Preparations	13C	1
Total		286

Glyceryl Polymethacrylate

Eye Lotion	03D	7
Other Eye Makeup Preparations	03G	4
Face Powders	07B	1
Foundations	07C	2
Other Makeup Preparations	07I	8
Other Personal Cleanliness Products	10E	1
Cleansing	12A	1
Face and Neck (exc shave)	12C	32
Body and Hand (exc shave)	12D	8
Moisturizing	12F	32
Night	12G	8
Skin Fresheners	12I	2
Other Skin Care Preps	12J	14
Other Suntan Preparations	13C	1
Total		121

**Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer - No
FDA uses**



Memorandum

TO: Bart Heldreth, Ph.D.
Executive Director - Cosmetic Ingredient Review

FROM: Carol Eisenmann, Ph.D.
Personal Care Products Council

DATE: January 6, 2021

SUBJECT: Concentration of Use by FDA Product Category: Glyceryl Acrylates

Concentration of Use by FDA Product Category – Glyceryl Acrylates

Caprylyl Glycol/Glycerin/Polyacrylic Acid Copolymer

Glyceryl Acrylate/Acrylic Acid Copolymer

Glyceryl Polymethacrylate

Ingredient	Product Category	Maximum Concentration of Use
Caprylyl Glycol/Glycerin/ Polyacrylic Acid Copolymer	Perfumes (4B)	0.2%
Glyceryl Acrylate/Acrylic Acid Copolymer	Eye shadows (3C)	0.082%
Glyceryl Acrylate/Acrylic Acid Copolymer	Eye lotions (3D)	0.035-0.62%
Glyceryl Acrylate/Acrylic Acid Copolymer	Other eye makeup preparations (3G)	0.035%
Glyceryl Acrylate/Acrylic Acid Copolymer	Foundations (7C)	0.00001%
Glyceryl Acrylate/Acrylic Acid Copolymer	Makeup bases (7F)	0.066%
Glyceryl Acrylate/Acrylic Acid Copolymer	Aftershave lotions (11A)	0.012%
Glyceryl Acrylate/Acrylic Acid Copolymer	Shaving cream (aerosol, brushless and lather) (11E)	0.012%
Glyceryl Acrylate/Acrylic Acid Copolymer	Skin cleansing (cold creams, cleansing lotions, liquids, and pads) (12A)	0.42%
Glyceryl Acrylate/Acrylic Acid Copolymer	Face and neck products Not spray (12C)	0.02-0.053%
Glyceryl Acrylate/Acrylic Acid Copolymer	Body and hand products Not spray (12D)	0.035-0.1%
Glyceryl Acrylate/Acrylic Acid Copolymer	Moisturizing products Not spray (12F)	0.053-0.62%
Glyceryl Acrylate/Acrylic Acid Copolymer	Paste masks and mud packs (12H)	0.17%
Glyceryl Acrylate/Acrylic Acid Copolymer	Other skin care preparations (12J)	0.088-0.11%
Glyceryl Acrylate/Acrylic Acid Copolymer	Other suntan preparations (13C)	0.18%
Glyceryl Polymethacrylate	Makeup bases (7F)	0.048-0.16%
Glyceryl Polymethacrylate	Face and neck products Not spray (12C)	0.46%
Glyceryl Polymethacrylate	Body and hand products Not spray (12D)	0.08-1.9%
Glyceryl Polymethacrylate	Other skin care preparations (12J)	0.08%

Information collected in 2020
Table prepared January 5, 2021